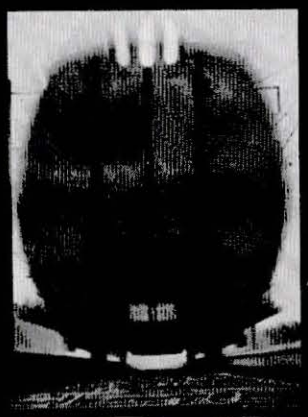
SPECIAL REPORT TO MANAGEMENT

JANUARY 22, 1968

# RAILWAY AGE

THE TRANSPORTATION WEEKLY



# '68 OUTLOOK

# '67 REVIEW

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# LOOK TO BUFFALO FOR

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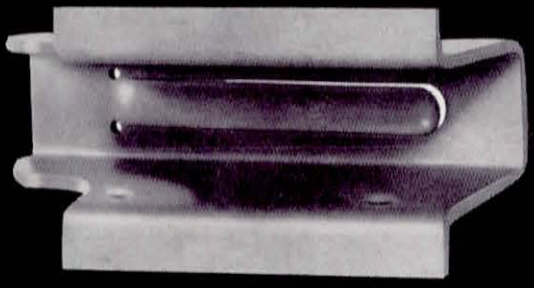

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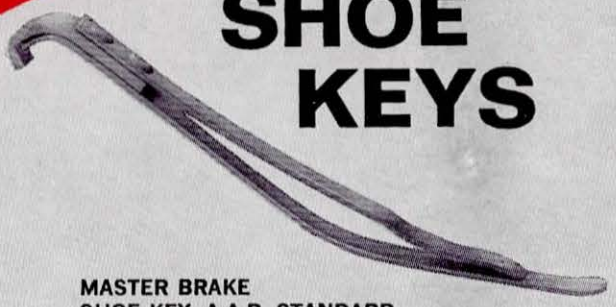

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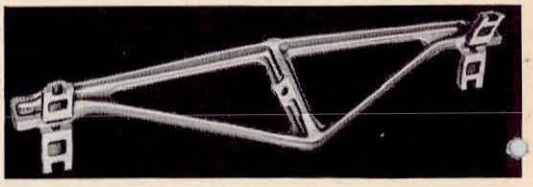

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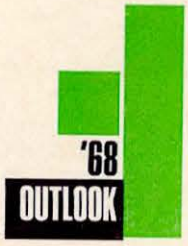
# RAILWAY AGE

January 22, 1968 • Vol. 164, No. 3


## THIS WEEK





37 More ton-miles . . . bigger spending

42 Over $1 billion will be spent for freight cars

46 P&S men head for a greater role

48 Diesels: Trend is up after an off year

57 Legislative gains to be spotty

66 Good prospects for labor peace

70 Railroads will beef up S&C outlays

72 Tie and rail renewals should increase

74 Review of 1967 railway operations

94 Statistical review of 1967


### DEPARTMENTS


| | | | |
|---|---|---|---|
| 127 | Freight Carloadings | 130 | People in the News |
| 51 | Letters from Readers | 7 | Short and Significant |
| 14 | Lines on Labor | 132 | Viewpoint |
| 8 | Monday Morning Report | 108 | Watching Washington |
| 127 | New Equipment | 12 | Week at a Glance |
| 125 | New Products Report | 128 | You Ought to Know |


## . . . AND COMING NEXT WEEK

**Super service from Santa Fe:** A detailed report on Santa Fe's brand-new all-container-piggyback "Super C" will appear in the Jan. 29 issue of Railway Age. Like all Freight Traffic issues, this one will be mailed to 10,000 leading shippers as well as the regular list of subscribers.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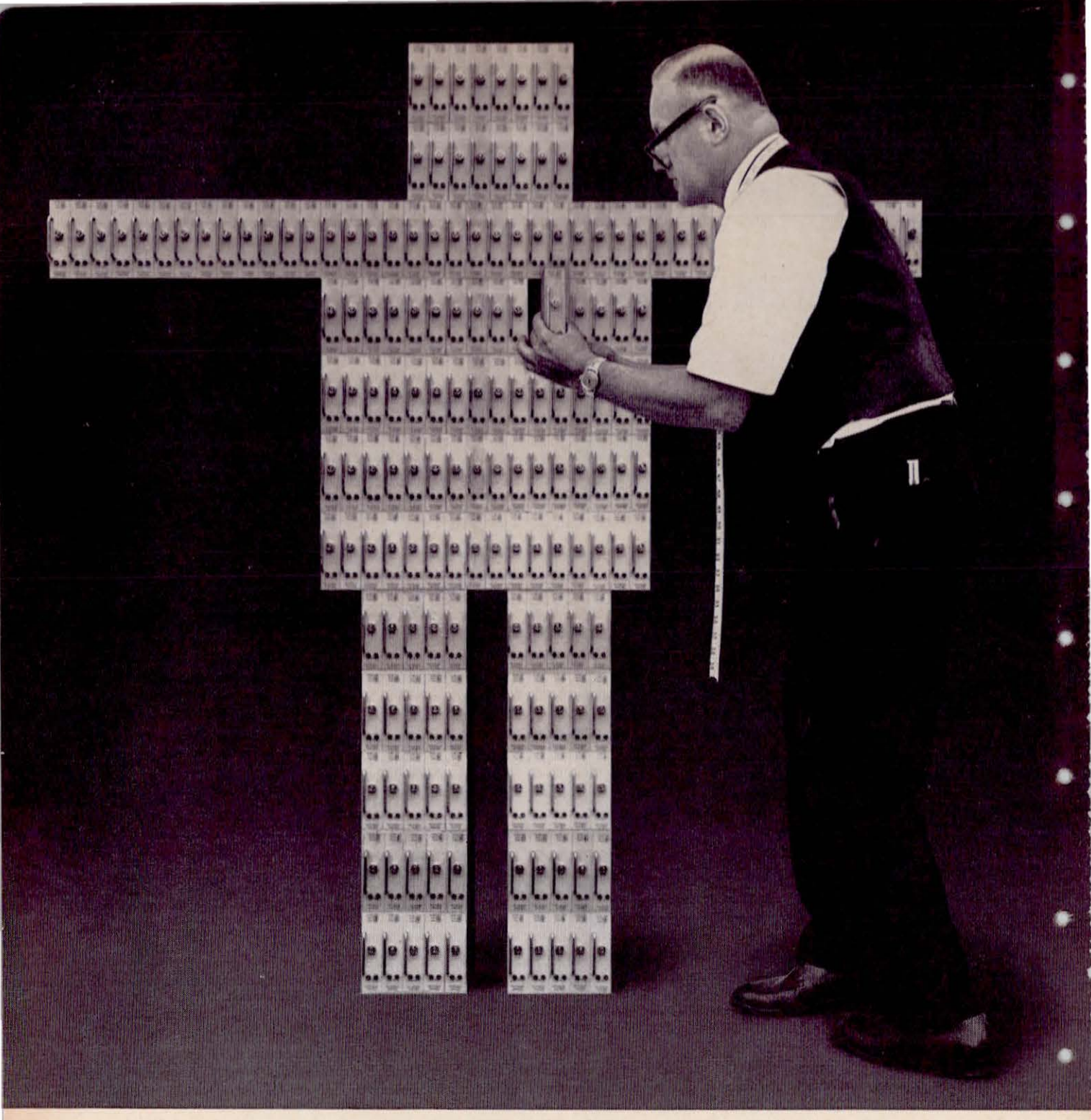

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Recent alterations by Lenkurt engineers to the 46A Multiplex System mean you now have the opportunity to practically design your own system—from a *single channel* all the way to *1,260 channels.*

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# SHORT AND SIGNIFICANT

**GSI is low bidder on 200 NYCTA cars**

General Steel Industries, now building 400 cars for the New York City Transit Authority (RA, Jan. 1/8, p. 19), may soon pocket an order for an additional 200 NYCTA cars, with an option to build still another 200. NYCTA opened bids last week on the new order. Bidding on cars of substantially the same design which its St. Louis Car Division is now building, GSI came in low with a bid of $130,250 per car for the first 200, and $128,800 for the 200 on option. Only other bidder was Budd, which bid $146,250 and $142,000, respectively. All bids were for fully air-conditioned cars. New York's Board of Estimate will review the bids and formally announce the winner this week. In addition to the 400 cars involved in the new order (including the option), NYCTA contemplates ordering an additional 200 cars later in the year.

●

**Passenger traffic hits 10-year Reading high**

The Reading hauled 12.7 million passengers in 1967—5% more than in 1966. Last year's volume was highest since 1957. December traffic—1.2 million riders—was the highest since 1962, when a program of local-government aid to commuter railroads got under way in Philadelphia. Reading's experience, said J. Steward Warden, manager of passenger services, "emphasizes the increasing need for rail commuter service and demonstrates the willingness of the public to utilize this type transportation where it best meets their demands."

●

**SP seeks discontinuance of "City of San Francisco"**

Southern Pacific has asked the ICC for authority to discontinue its "City of San Francisco" operation between Oakland, Calif., and Ogden, Utah. SP says the train is losing an estimated $950,000 a year right now, and business is continuing downward. Operation costs for one trip total $4,800, compared with revenue of $3,500 per trip. Currently, SP sells about 78 tickets per trip, which equals two busloads. The 1967 average was 145 passengers per trip (from summer travel mainly), compared with 200 in 1966. Union Pacific, which hauls the train over the major part of the route, Omaha-Ogden, says it has no objections to the SP request, and that UP will continue service to Ogden. Milwaukee, which hauls the "San Francisco" between Chicago and Omaha, says it's not affected.

●

**Trailer Train car orders totaled 4,861 in '67**

One out of every 10 freight cars ordered last year was purchased by Trailer Train. TTX disclosed last week that its orders in 1967 amounted to 4,861 cars. Total freight-car orders, when December figures are in, are expected to be in the neighborhood of 48,000 to 50,000 cars. Trailer Train's final order of the year, for 10 89-ft standard level piggyback cars, was placed with Bethlehem. (Railroads, private car lines and industrial users reported buying 48,863 freight cars last year, according to figures submitted to Railway Age. Detailed listings of freight car and locomotive orders begin on page 96 of this issue.)

●

**Southern places $8.3-million car order**

First big freight-car order of 1968 has been placed by the Southern. Pullman-Standard will build 500 70-ton, 50½-ft all-steel box cars for the Southern at its Bessemer, Ala., plant. Deliveries will begin in March. The cars will be equipped with 30-inch-travel cushion underframes. Southern President W. Graham Claytor, Jr., said the order is "part of our railroad's emphasis on having enough cars of the kinds required to serve our customers' needs properly."

# MONDAY MORNING REPORT

**Supreme Court ends slow orders for Penn-Central**

All lights are now green for consummation of the Pennsylvania-New York Central merger, and for inclusion of Erie Lackawanna, Delaware & Hudson and Boston & Maine in the present Norfolk & Western system. The United States Supreme Court set the proceed signals last week, refusing to issue any more of the slow orders which have held up Penn-Central for 21 months since it was approved by the ICC in April 1966. "It is no longer open to the parties to challenge the Commission's approval of the Penn-Central merger and inclusion of the three protected lines in N&W, or its order that immediate consummation of the merger should be permitted," the Court said.

**Many and varied were contentions of parties**

Its opinion, by Justice Abe Fortas, disposed of 12 cases involving appeals from ICC and lower-court decisions. While it thus found many and varied contentions urged upon it, the Court said the issues could be articulated as follows: Has the mandate of this Court been fulfilled in that appropriate provision has now been made for the three smaller roads? Are the terms of the order providing for inclusion of the protected roads in the N&W system fair and equitable and in the public interest? Did the district court err in refusing to enjoin consummation of the Penn-Central merger? Has adequate provision been made for resolution of peripheral issues which would not be foreclosed by a decision authorizing consummation of the merger and inclusion of the protected roads in the N&W?

**Remnant claims may still be pressed**

The decision answered all these questions in the affirmative. It was a 7-to-1 decision. Not participating was Justice Thurgood Marshall, who was Solicitor General when some of the 12 cases were on their way up. The adverse vote came from Justice William O. Douglas. He filed two dissenting-in-part opinions to protest against the majority's failure to give what he considered adequate attention to claims of various parties, especially some communities in Pennsylvania and bondholders of the New Haven which will become part of Penn-Central. These claims and others, including those of Boston & Maine and Reading, were what the majority considered peripheral. It emphasized that, if not specifically excluded by its decision, they will remain alive—but they are not to hold up implementation of the basic Commission orders. From its assertion that those orders are no longer open to challenge, the Court followed through to say: "Any claims for specific relief, such as particularized objections which may arise from specific proposals for consolidation or reduction of facilities or services, are unaffected by this decision." Such claims, the Court added, may be pursued before the Commission or in the lower courts or both, "as may be appropriate."

**No basis for upsetting N&W inclusion decision**

N&W, with support from Chesapeake & Ohio, Baltimore & Ohio and Western Maryland, opposed consummation of Penn-Central until the job of getting E-L, D&H and B&M into some eastern system was all wrapped up. N&W also opposed the inclusion orders. Here, too, the Court found no basis for reversing lower-court rulings upholding the Commission. Consummation of its merger with the former Nickel Plate left N&W committed to taking in the three protected roads on terms found equitable by the Commission. Since that time, however, N&W and C&O have filed their merger applications with provisions whereby that proposed system would form a subsidiary to acquire not only the protected roads but Reading and Central of New Jersey, too.

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Stainless steel's high strength permits lightweight designs. The result is economical construction since less material is required per car.

This also means a savings in operating costs. And lower deadweight saves power costs. Acceleration is faster. Stopping is quicker. Schedules are speeded up, therefore fewer cars are needed.

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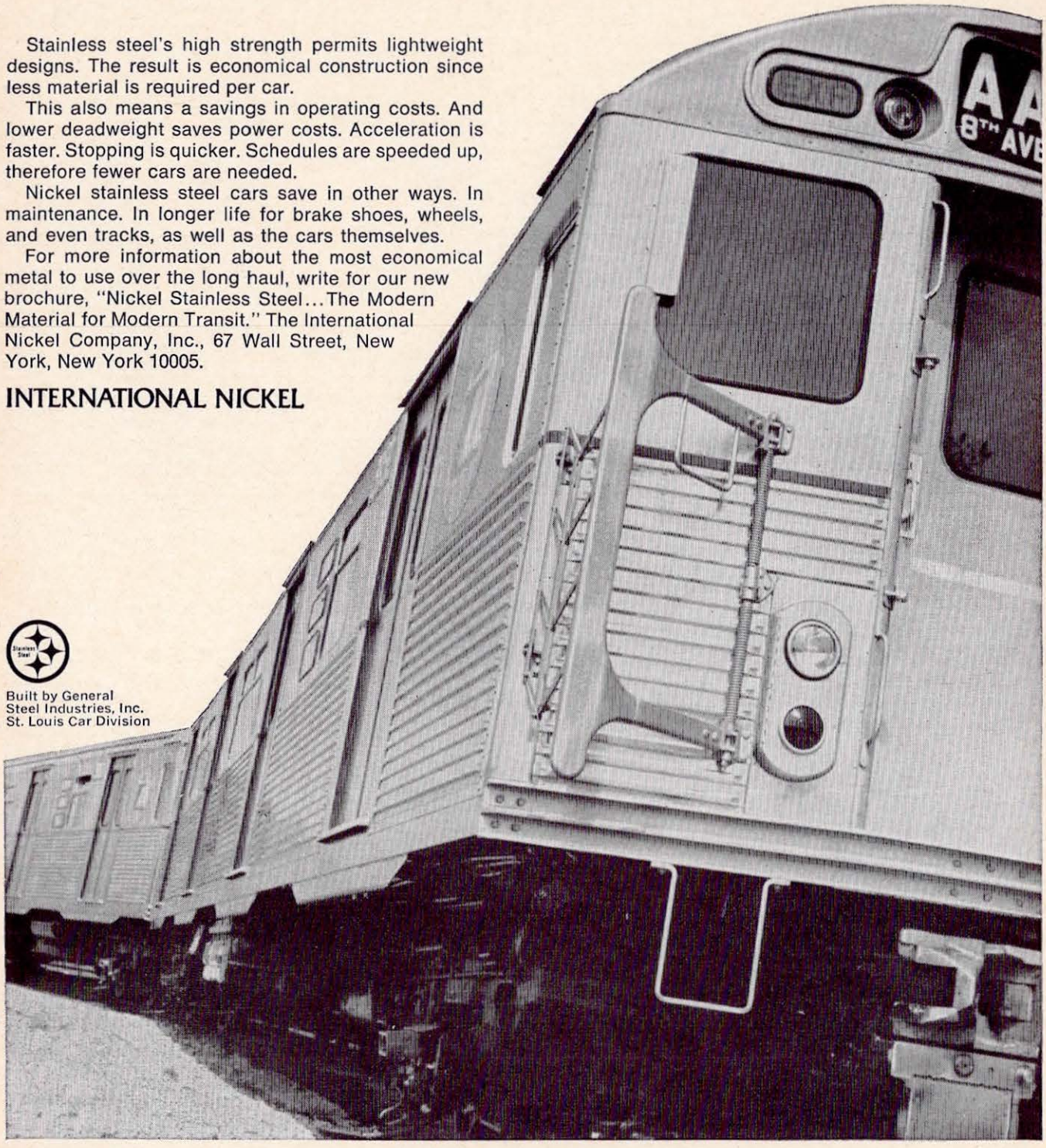


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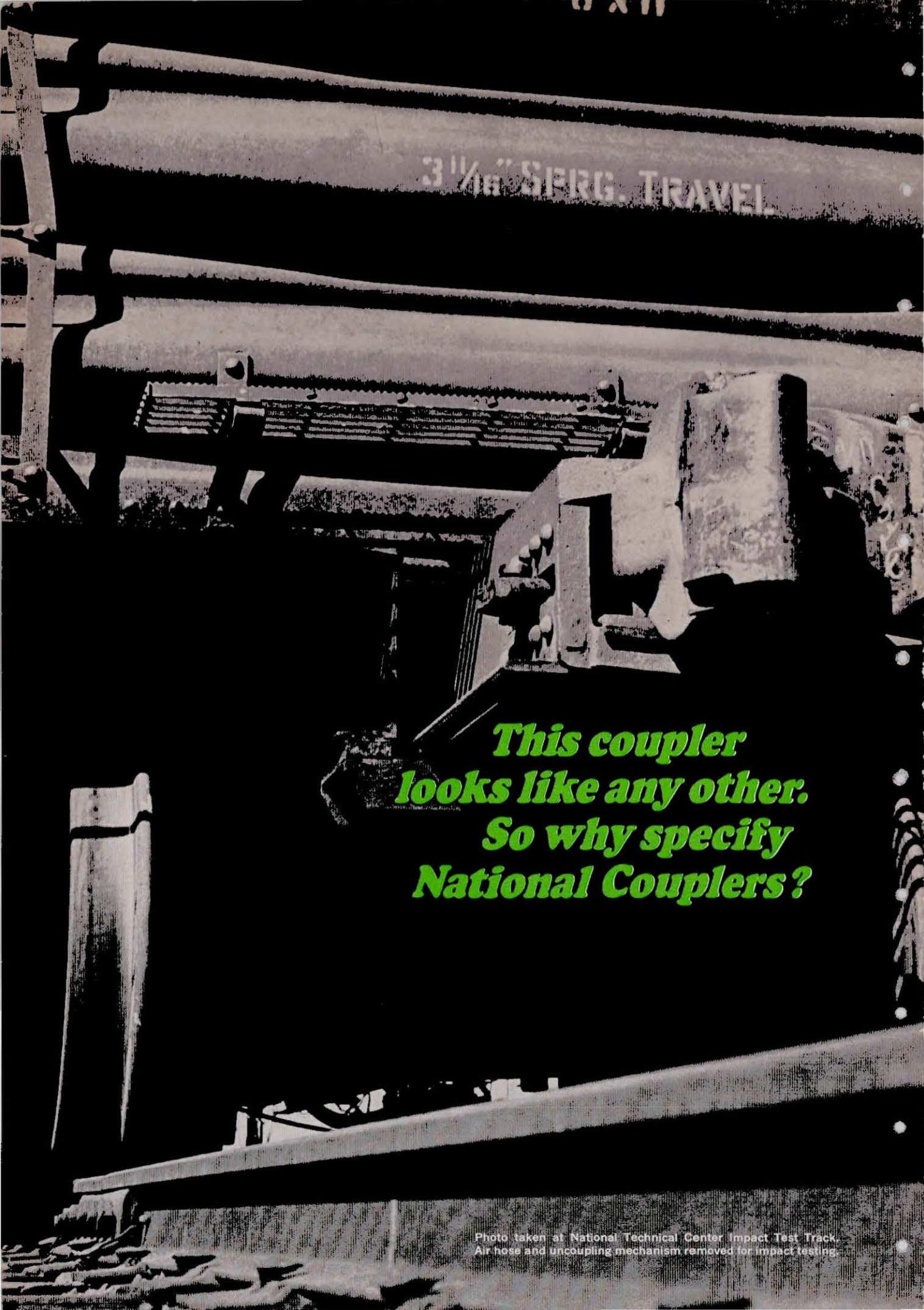


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National is nearing its 14-millionth railroad coupler. Nowhere else in the world is there such a fund of coupler know-how as at National. This knowledge and experience applied to your problems gives you assurance — and results.

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No matter what your coupler application may be, National makes either an AAR type or a coupler of National design to fulfill all requirements — or can readily produce a "special" from proven designs. You don't take chances when you order from National.

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National's production facilities are fully integrated to provide precise quality controls at every stage of manufacture from melting, through pouring, to finishing, gaging and testing. Each National coupler possesses all the most desirable physical properties to assure longest service life.

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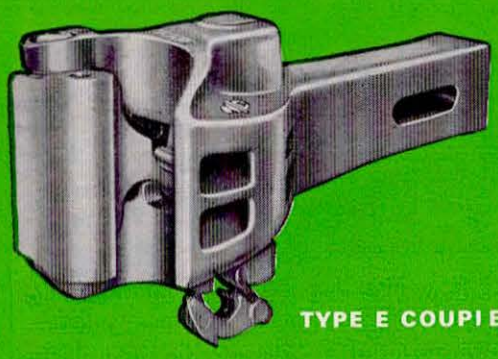

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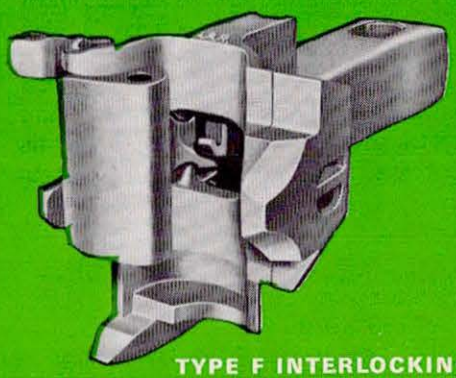

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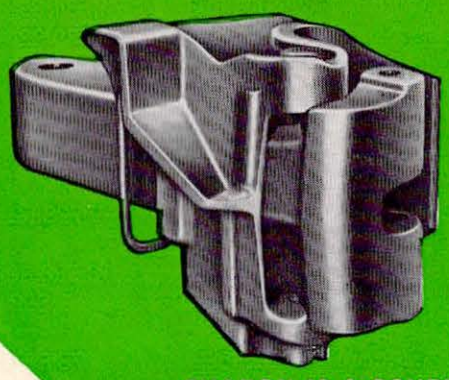

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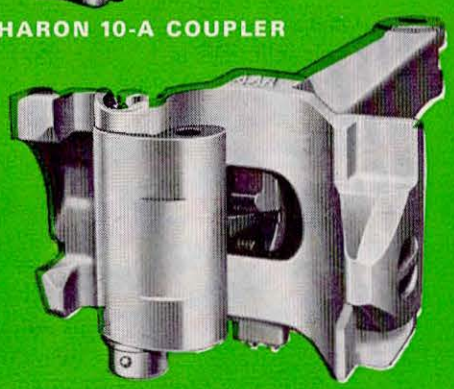

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RAILWAY AGE
THE TRANSPORTATION WEEKLY

January 22, 1968

# WEEK AT A GLANCE

## Penn-Central: It's the greatest

Superlatives flew like rice last week in the wake of the biggest—though perhaps least unexpected—business news stories of the decade: the final clearing of the way for the marriage of the Pennsylvania and the New York Central (see page 8). The biggest corporate merger in history will create the world's biggest privately owned railway system (19,315 miles vs Canadian Pacific's 16,638), and one of the richest corporations anywhere in terms of total assets ($4.2 billion). The road to merger was studded with records of its own. In 128 days of public hearings before the ICC (more than in any previous case before the Commission), enough testimony was submitted to fill 40,000 pages (another record) which were bound into 40 volumes.

Among those most jubilant over last week's news were some 30,000 commuters on the New Haven, which has been in bankruptcy since 1961. As a condition of merger, Penn-Central will eventually take over New Haven operations. Even before that takeover is complete, the merger will permit implementation of a long-delayed improvement program on the New Haven (including the purchase of 144 new commuter cars) in which the federal government, along with the affected states, will participate.

A precise date for the merger could not be fixed immediately, pending the issuing of an order by a three-judge New York court—a formality that was expected to take place late last week. Feb. 1 was considered to be the likeliest date; March 1 the latest under any circumstances.

Heading the Pennsylvania New York Central Transportation Co. will be Stuart T. Saunders, chairman of the PRR, as chairman and chief executive officer; and Alfred E. Perlman, NYC's president, as president and chief administrative officer. In a joint statement, Saunders and Perlman recapped some of the expected merger benefits:

"Better utilization of the combined freight car fleet, with modern computers and the elimination of time-consuming interchanges at common points are among the immediate advantages that will improve car supply to shippers."

### VITAL STATISTICS

Sept. 30, 1967 (1st 9 Months)

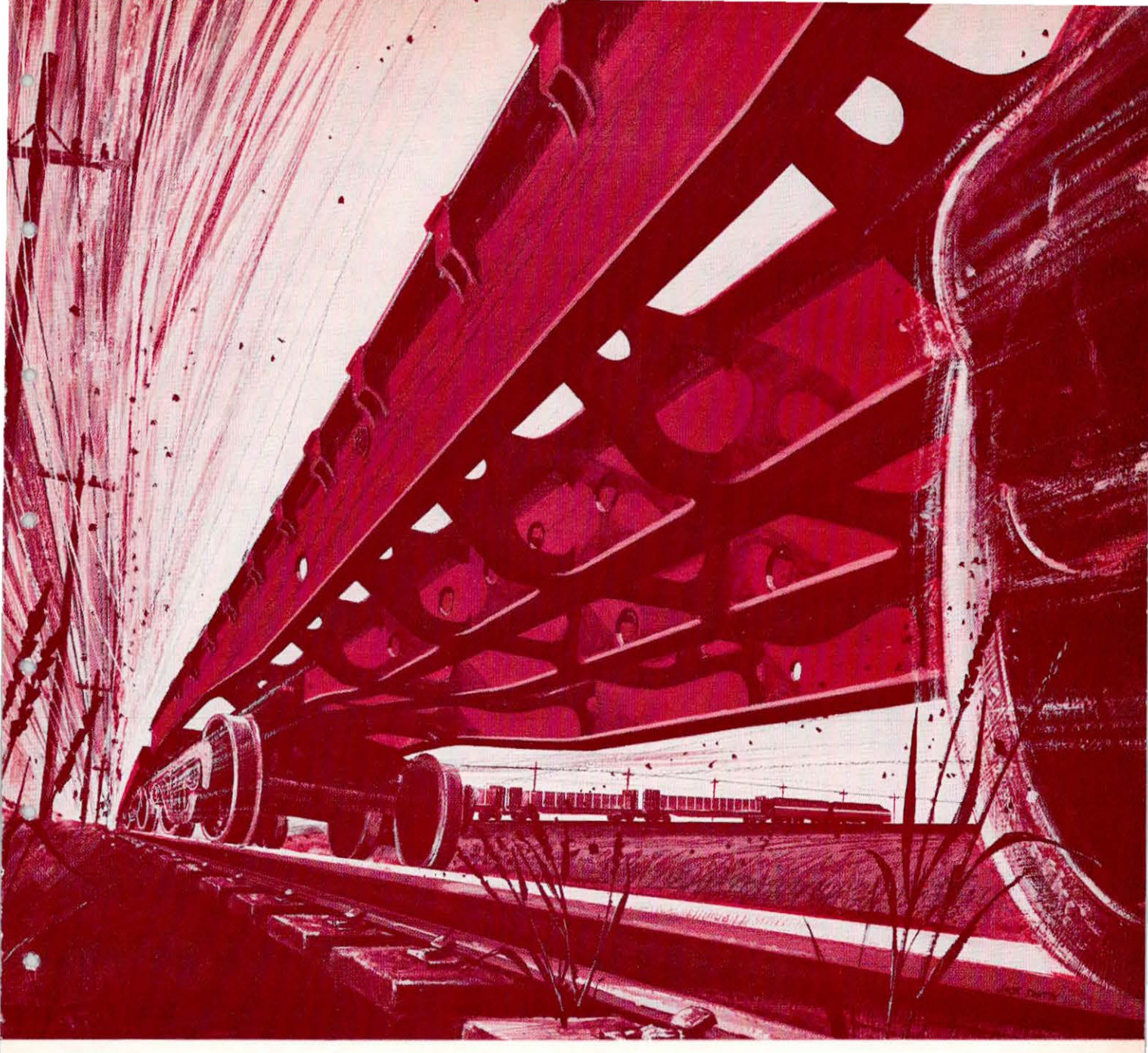
| | Pennsylvania | New York Central |
|---|---|---|
| Employees | 54,842 | 41,041 |
| Operating revenues | $646,041,693 | $474,534,298 |
| Net Income | $ 7,470,607 | 2,639,324-D |
| Assets | $2,488,479,955 | 1,836,768,790 |
| Revenue ton miles | 37,614,193,597 | 28,817,684,547 |
| Revenue passenger miles | 1,317,118,210 | 712,504,628 |
| Number of miles of road | 9,557.63 | 9,728.52 |
| Number of miles of track | 22,029.24 | 18,600.00-E |
| Locomotives | 2,310 | 1,892 |
| Number of freight train cars | 115,852 | 78,804 |
| Number of passenger train cars | 2,912 | 2,025 |

D—Deficit E—Estimated

## Elsewhere on the merger front

In a move that ended hearings and closed the record on the North Western-Milwaukee merger, ICC Examiner Henry C. Darmstadter last week ordered parties to submit briefs by April 26. His recommendation is now expected in late 1968 or early 1969, and a full-Commission decision could come in last-half 1969. The hearing started Feb. 6, 1967, and involved 121 days of proceedings.

Meanwhile, Milwaukee "reluctantly" asked the ICC to delay the effective date of the Northern Lines' merger and to consider deleting or modifying a traffic condition favoring Western Pacific. The condition ordered Milwaukee to (1) maintain schedules and service on "central transcontinental routes" between the Midwest and northern California equal to those maintained by Milwaukee through its connections on "northern transcontinental routes"; (2) maintain on the central routes joint through-rates as favorable as those Milwaukee makes through its connections over the northern routes; (3) secure by "active solicitation" the routing of maximum traffic on the central routes, and route unrouted traffic on the central routes and (4) for traffic from the Midwest to northwest, maintain on the central routes joint-through rates as favorable as on Milwaukee's northern routes.



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# What happens to GSI Cast Steel Underframes after 10, 20, or 30 years of service? Nothing. They just keep on going, going, going, going, going, going, going, going, going, go

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## Auto-train looks better than ever, test results show

The Department of Transportation's proposal to build a special train for transporting automobiles, along with their drivers and passengers, has run into a number of criticisms—one of which is that the resulting ride would be too bumpy and generally unpleasant to entice the average motorist off the highway. Last week D.O.T. announced the results of a ride-quality study which, it claimed, had established just the opposite. "Automobile-carrying vehicles could provide a smoother and quieter passenger ride than either conventional autos or rail coaches," declared D.O.T.

D.O.T.'s statement was based on tests which involved the placing of two automobiles inside one of the Department's high-speed rail test cars. The autos were instrumented to measure ride vibrations and motions, and establish ride quality in the automobiles under various track and physical conditions. The railroad tests were conducted on the Richmond, Fredericksburg & Potomac, the Seaboard Coast Line, and the Pennsylvania. For comparative purposes, the autos were run on the New Jersey and Pennsylvania turnpikes and primary U.S. highways with identical test equipment.

Dr. Robert A. Nelson, director of the D.O.T. Office of High Speed Ground Transportation, said the study answered "many questions about the feasibility of auto-train type operations."

## GUS WELTY'S LINES ON LABOR

WELTY

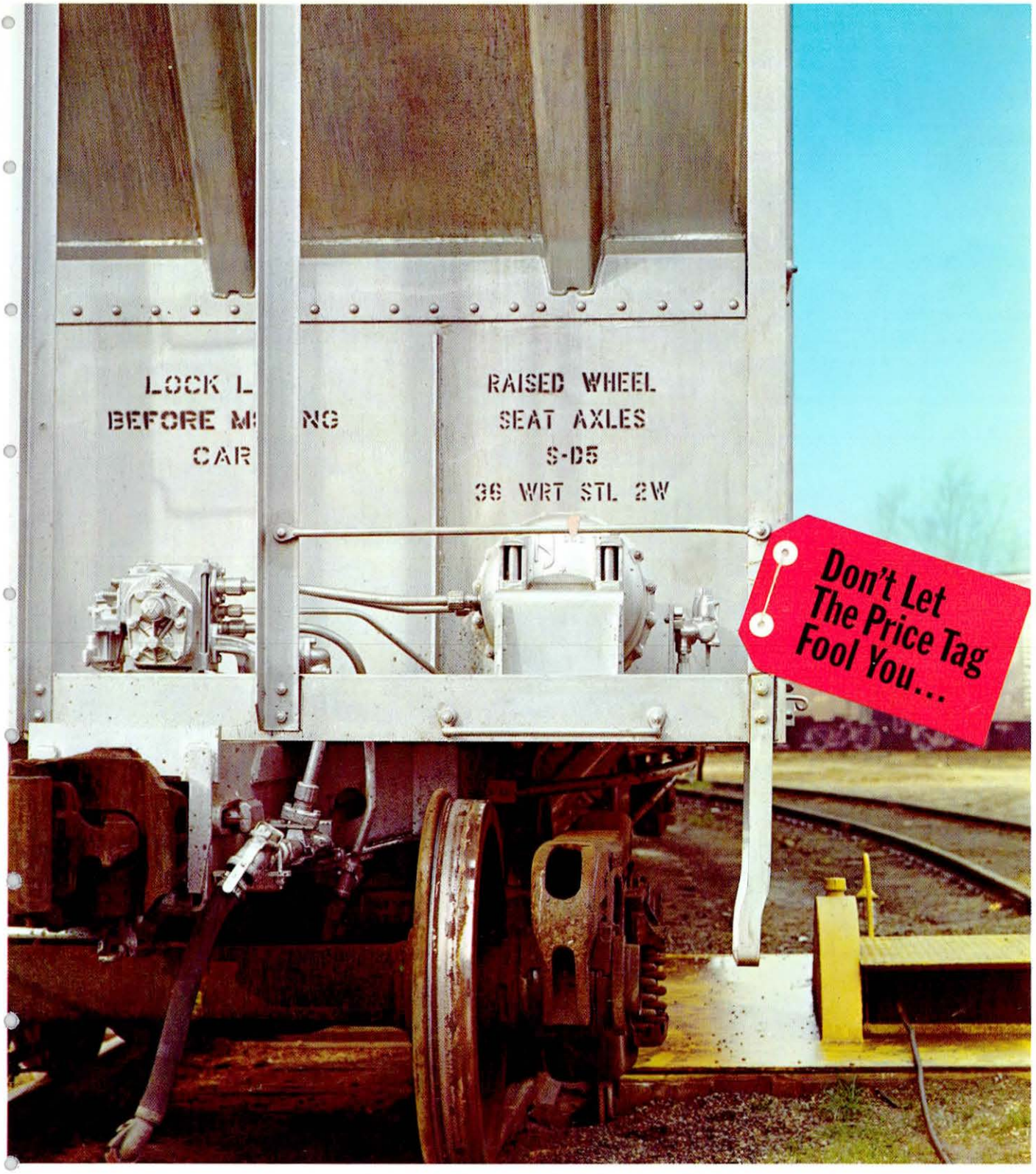
**SWEETNESS-AND-LIGHT** apparently goes just so far and no farther, where rail management and the brothers are concerned. Take the past month as an example. The last of the '67 wage disputes was settled. The first of the new wage movements was settled, and with the biggest of all rail unions. Management and labor agreed on a single-package handling of health-and-welfare coverage. There was agreement on a move to ask Congress for improved retirement benefits. And then what happened? George E. Leighty, chairman of the Railway Labor Executives' Association, issued a statement. And management and the unions were barking at each other once again.

**LEIGHTY'S SPRINGBOARD** was the signing of the uniform health-and-welfare agreement. In one Olympian leap the RLEA chairman called for a meeting of "railroad presidents and other leaders" with RLEA in an attempt to arrive at "new attitudes and new policies." He went on to detail five specific areas where "proper new policies" should be developed. Not surprisingly, all five areas involved alleged derelictions on the part of management.

**BRIEFLY,** this was the five-point program: (1) Negotiate prompt, good-faith settlements . . . in line with the employees' needs; (2) implement, in good faith, agreements signed on a national basis; (3) handle grievances promptly and reasonably; (4) advertise confidence in railroad employees; and (5) find ways to support rail labor on legislation and other matters of mutual benefit.

**MANAGEMENT,** under the circumstances, might have reacted angrily—and been forgiven for it. But National Railway Labor Conference Chairman J. P. Hiltz, Jr., chose instead to agree wholeheartedly that harmony and cooperation are desirable—on realistic bases. Point by point, Hiltz considered Leighty's program: (1) Demands will be handled as quickly as physically possible, and there won't be resort to court action if demands are bargainable; (2) good-faith implementation of agreements is a two-way street, and traffic is generally governed by provisions of each agreement; (3) worthwhile grievances might be handled more expeditiously "if the great number of unreasonable grievances are eliminated;" (4) recognition has been and will be given to the employees; and (5) management has worked and will work enthusiastically with labor on legislation where mutual benefit is really involved.

**THE SUMMIT-MEETING** call, of course, got no comment from NRLC's chairman. The question, he noted, wasn't directed to his jurisdiction. So, if there is to be some kind of reply to this time-worn proposal, it's going to have to come from somewhere else. One can only hope that this comment would be as calm and as practical as the reply Jack Hiltz gave to the RLEA's five points.




**aluminum cars are**
**the least expensive freight cars**
**you can own**
**(or lease)**

# Experience—and cost accounting —prove aluminum cars will actually cost less and earn more over their lifetime than steel cars.

You do pay a premium, initially, for an aluminum freight car. It averages about $4,000 over the price of a steel car. (A recent bid showed a spread of only $2,300.) But when you consider the total cost of the cars and their revenue-producing capacity over their service lifetime, there's no question that the aluminum car has a major advantage.

Basic, of course, is the lower tare weight and higher capacity of the aluminum car. A 4,750 cu. ft. aluminum covered hopper can carry 13,500 lbs. more payload than a typical steel car of comparable size. In cars ranging from 2,600 to 2,900 cu. ft., aluminum gives you a 16,000 lb. payload advantage over steel.

### Extra Payload Pays Off

With this sort of payload advantage, it doesn't take many trips per month for an aluminum car to produce a sizable extra revenue. The following table shows how much added revenue an aluminum car can produce on two-turn-arounds per month, with various per ton rates:

**Added Revenue Earned By Aluminum Covered Hopper Car Over Comparable Steel Car—Based on 6¾ Ton Bonus Payload**

| Rates Per Ton | Revenue Additional Per Trip | Revenue Additional Per Month | Revenue Additional Per Year | Revenue Additional Per 15 Years |
|---|---|---|---|---|
| $ 1.00 | $ 6.75 | $ 13.50 | $ 162.00 | $ 2,430.00 |
| 2.00 | 13.50 | 27.00 | 324.00 | 4,860.00 |
| 3.00 | 20.25 | 40.50 | 486.00 | 7,290.00 |
| 4.00 | 27.00 | 54.00 | 648.00 | 9,720.00 |
| 5.00 | 33.75 | 67.50 | 810.00 | 12,150.00 |
| 6.00 | 40.50 | 81.00 | 972.00 | 14,580.00 |
| 7.00 | 47.25 | 94.50 | 1,134.00 | 17,010.00 |
| 8.00 | 54.00 | 108.00 | 1,296.00 | 19,440.00 |
| 9.00 | 60.75 | 121.50 | 1,458.00 | 21,870.00 |
| 10.00 | 67.50 | 135.00 | 1,620.00 | 24,300.00 |

Thus, at the end of 15 years, with two-turn per month service and a conservative grain rate of $4.00 per ton, the aluminum car will earn $9,720 more than the steel car.

### Lower Operating Costs

Extra earning capacity, however, is just one of the long-term financial benefits that aluminum cars give their owners. Substantially lower operating costs is another.

Because it is 13,500 lbs. heavier on the empty return trip, a steel car travels more ton-miles than an aluminum car in the same service. Ton-mileage, of course, is directly related to operating costs. With less ton-mileage, an aluminum car will require less train fuel, less locomotive maintenance and lubrication, less maintenance of way.

### Maintenance Slashed

An aluminum car itself requires much less maintenance than a steel car. Aluminum won't rust, so the car needs no protective painting. Aluminum also resists corrosion and protects cargoes from contamination, so expensive interior coatings are not required. Interior coatings or linings for steel cars cost about $700 per application, and must be replaced several times during the life of the car.

Reynolds economists have estimated that an aluminum open hopper or gondola car in unit train coal service would save over $4,000 in maintenance costs in a 20 year period. This is because the average steel car's side sheets, slope sheets, and crossridge sheets must be replaced at least once in 20 years of coal service; experience indicates this is not necessary with aluminum coal cars.

### Extra Dividend in Scrap

There is one more major financial factor to be considered with aluminum cars: scrap value. At the end of its service life, a typical aluminum-body car will yield about 15,000 lbs. of aluminum scrap. (The aluminum car is really an aluminum-body car, with 15,000 lbs. or 30% of its tare weight being aluminum.) Conservatively, an aluminum car would be worth $2,200 more in scrap value than a similar steel car.

### Total Cost Analysis

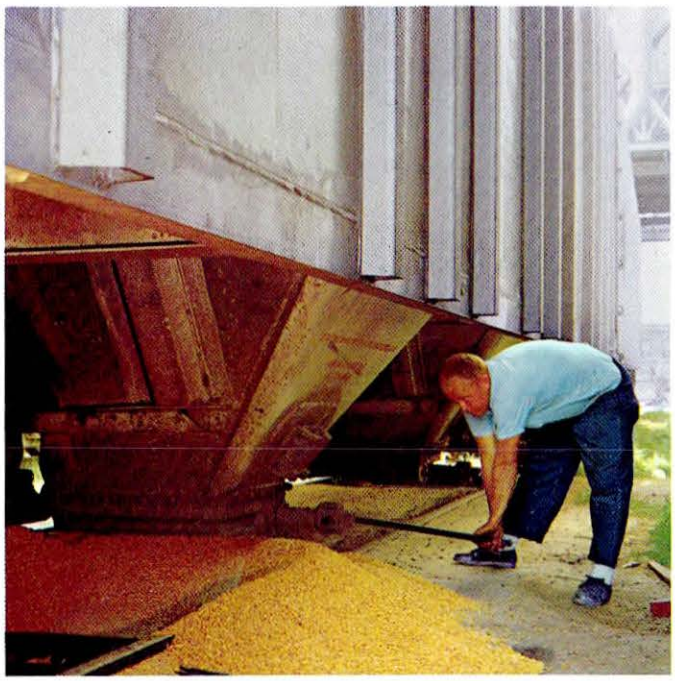
One railroad executive recently analyzed all these factors as they applied to 150 aluminum covered hoppers for general service. He found that the projected 15 year savings in operating costs, maintenance, and scrap value would completely cover the premium in first cost of the cars, and yield an extra savings of $97 per year per car. This study did not take the additional payload and revenue capacity of the aluminum cars into consideration.

Aluminum cars command higher per diem rates for off-line service, so their extra earning power is not limited to "captive" service.

**Added Per Diem Revenue with Aluminum Cars**

| Year | Aluminum Car Value For Per Diem Per Unit (1) | Per Diem Rate | Steel Car Value For Per Diem Per Unit (1) | Per Diem Rate | Differential Per Diem Rate | Added Revenue For Aluminum Cars Per Unit Per Year (2) |
|---|---|---|---|---|---|---|
| 1 | $19,000 | $6.15 | $15,000 | $6.15 | — | — |
| 2 | 18,430 | 6.15 | 14,550 | 4.50 | $1.65 | $ 297.00 |
| 3 | 17,860 | 6.15 | 14,100 | 4.50 | 1.65 | 297.00 |
| 4 | 17,290 | 6.15 | 13,650 | 4.50 | 1.65 | 297.00 |
| 5 | 16,720 | 6.15 | 13,200 | 4.50 | 1.65 | 297.00 |
| 6 | 16,150 | 6.15 | 12,750 | 4.50 | 1.65 | 297.00 |
| 7 | 15,580 | 6.15 | 12,300 | 4.50 | 1.65 | 297.00 |
| 8 | 15,010 | 6.15 | 11,850 | 4.50 | 1.65 | 297.00 |
| 9 | 14,440 | 4.50 | 11,400 | 4.50 | — | — |
| 10 | 13,870 | 4.50 | 10,950 | 4.50 | — | — |
| 11 | 13,300 | 4.50 | 10,500 | 4.50 | — | — |
| 12 | 12,730 | 4.50 | 10,050 | 4.50 | — | — |
| 13 | 12,160 | 4.50 | 9,600 | 3.58 | 0.92 | 165.60 |
| 14 | 11,590 | 4.50 | 9,150 | 3.58 | 0.92 | 165.60 |
| 15 | 11,020 | 4.50 | 8,700 | 3.58 | 0.92 | 165.60 |
| Total | | | | | | $2,575.80 |
| Averages | | $5.380 | | $4.426 | $0.954 | $ 171.72 |

(1) Straight line depreciation at 3% per year
(2) Assumed 180 off-line days per year



When a lease arrangement is preferred to outright purchase, Reynolds specialists work with the railroads and leasing companies to get interest rates comparable to—if not better than—those for steel cars.

If you're planning to invest in new freight cars, look at the total cost, the total earning power, of the cars. You'll see why more aluminum cars are going into service every year . . . more of them made with Reynolds Aluminum than any other.

The facts on the previous pages show how aluminum covered hopper cars reduce costs and boost revenue for their owners. Other types of aluminum cars offer these benefits, too: Open hoppers, gondolas, and tank cars all cost less to operate and maintain when they're made of aluminum—and have extra payload capacity, higher scrap value, as well.

The service records of these cars show that their day-to-day economies add up to long-term financial benefits.

Aluminum's light weight, strength, and corrosion resistance pay important dividends in car components and special freight equipment as well as in rolling stock—as proven daily by aluminum car doors, crossmembers, and bulkheads.

Let a Reynolds railroad specialist show you the long-term advantages of aluminum cars and equipment. Contact your local Reynolds office for details or write Reynolds Metals Company, P.O. Box 2346-XY, Richmond, Virginia 23218.

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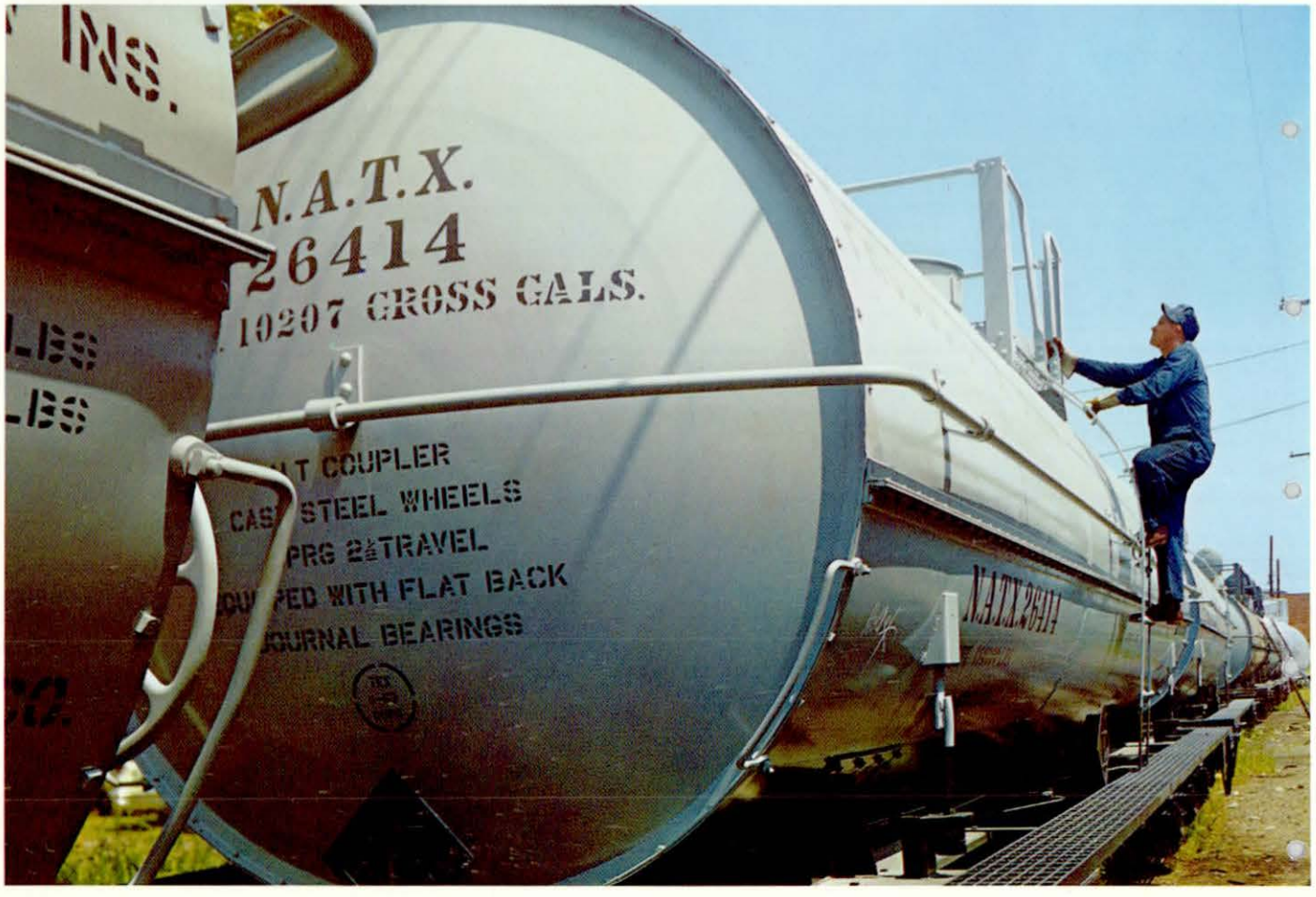
**ALUMINUM**

Gondola cars made with Reynolds Aluminum, in daily unit train coal service.

Strong, lightweight bulkheads of Reynolds Aluminum guard bulky freight.

Tough Reynolds Aluminum helps tank cars serve longer with corrosive cargoes.



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# Proven best by Test

Testing Laboratories — THE Budd COMPANY — Philadelphia, Pennsylvania

## The Inside Story of Budd Report #2238

The Landreth Insulated Car equipped with Landreth's Pre-Molded Urethane Foam Panels has just undergone exhaustive tests. After six months of road tests, the car was tested in The Budd Company testing laboratories in Philadelphia.

Here are the startling results from the Budd Laboratory's report.

The car constructed with the Landreth Pre-Molded Urethane Foam Panels was to be tested against two other cars constructed with Urethane Foam block. All the cars had been previously road tested for six months or longer.

The Landreth equipped car had absolutely no air leakage, no hot spots, and no voids in the foam. In addition, at 100 degrees differential, the car built with the Urethane Foam block had a BTU average of 143 BTU's per hour. The car equipped with the Landreth Pre-Molded Urethane Foam Panels, also at 100 degrees differential and tested under the exact conditions, showed an average of just 93 BTU's per hour.

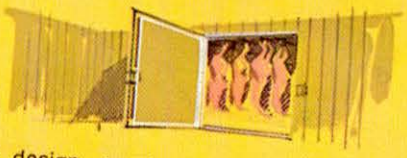
The Landreth Insulated Car was at least 50% more efficient than the car constructed with foam block. Conclusive proof that the Landreth Pre-Molded Urethane Foam Panel--is "Best by Test," both in road and laboratory testing!

## Landreth systems have many diversified applications

Urethane Foam and all Fiberglas Panels for insulated box cars and mechanical temperature control cars.

Urethane Foam and all Fiberglas Panels for tractor trailers.

Urethane Foam and all Fiberglas Panels for containers.



The design, construction and application of cold rooms for dairies, breweries, frozen food processors, citrus plants, cold storage plants, bakeries, and many others.

Pre-Molded and Pre-Cut Insulation Walls for home and industrial construction.

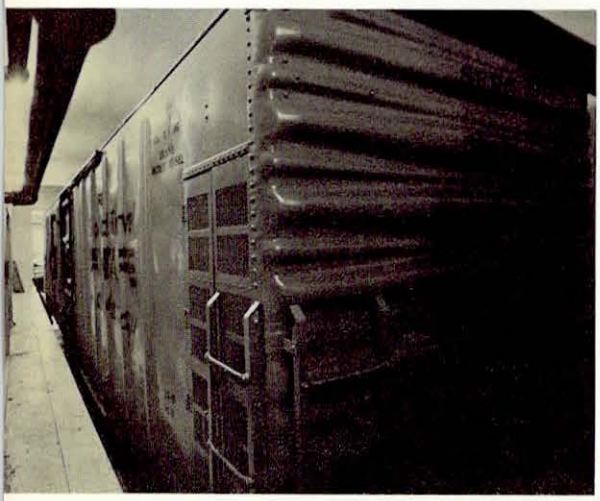
Pre-Molded and Pre-Cut Urethane Foam Panels with steel inner face for Ore Jennies.

Landreth
INDUSTRIES, INC.

*Landreth industries offers the most modern facilities to insure highest quality control material available*

Home office and plant facility in Evanston, Illinois. Research-testing laboratory and world's most modern cold room facility.

Our new mechanized manufacturing facility south of Chicago.



Landreth offers the most modern cold room testing laboratory in existence today. The cold room is 85 ft. long and is large enough to accommodate and test under controlled laboratory conditions the largest insulated cars of today and tomorrow.

Landreth engineers simulate extreme temperature variations. By testing the efficiency of various insulation materials, you are guaranteed the best possible insulation panel to suit your specific needs.

The cold room is constructed with Landreth prefabricated Urethane Foam Panels. And control room is equipped with the most modern equipment. The Landreth cold room laboratory was set up in conjunction with and approved by the U. S. Bureau of Standar

The cold room laboratory can measure temperature extremes from —30° F. to + 180° F

The Landreth engineers accurately measure heat loss by the direct heat flow method, the reverse heat flow method, and air leakage.

## Features of the Landreth Pre-Molded Urethane Foam Panels

- No air infiltration
- No localized hot spots
- Non-Burning foam
- Easy repairs
- Seamless vapor barrier

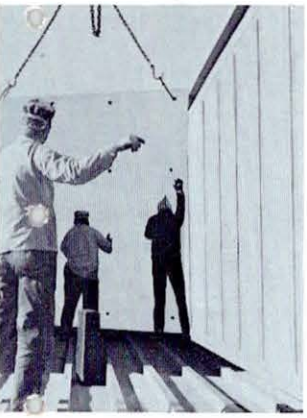
## Landreth offers the most modern research and development facilities

A well equipped laboratory to test insulation properties, strengths, and efficiency of insulating materials.

A complete and thoroughly experienced engineering and design staff is available to solve your design and construction problems relating to insulation.

# *The Landreth system reduces Labor cost and increases efficiency*

The new Landreth System enables the builder to provide the most efficient insulation without the necessity of installing equipment and costly facilities. The system provides a more efficient insulation with greater capacity and is much faster to build.

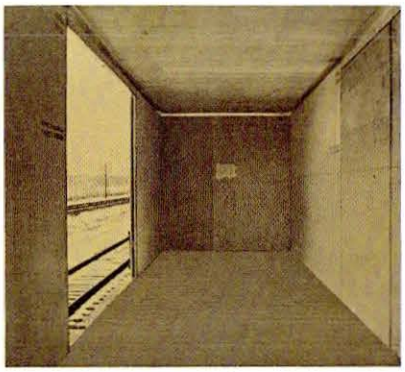


*Landreth Pre-Molded Urethane Foam Panels are the most efficient on the market.*

Landreth revolutionized the development and application of insulation materials in the railroad industry.

Workman lowering side panel into place.

Workman fastening "Nelson" stud to outside post. Insulation thickness is reduced by ½ over conventional insulation materials.



End panel being lowered into place. Panels are moved into production line on flat cars and lifted into cars by cranes.

All joints foamed to insure complete air-tight car. Only fourteen panels are required per car, cut to size and ready to bolt into place—six for the sides and ends, two for the doors, three for the ceiling, and three for the floor.

reater thermal efficiency
hinner walls
om letely prefabricated
uarantee no voids
ll joints foamed

- No moisture absorption
- Odor free and non-toxic
- Fungus and rot proof
- Added structural rigidity

- Improves with age—does not deteriorate
- Fire proof
- Does not spread or settle from load vibration or temperature change

## These major corporations have experienced the money-saving efficiencies of the Landreth system

The Landreth System has proven itself to be "Best by Test." These are but a few of the corporations that have utilized the knowledge and services of Landreth Industries to solve their insulation problems. Each problem and opportunity presented a different insulation application.

*Landreth's Spectacular growth* clearly demonstrates the ability of Landreth's technological knowledge of solving insulation problems.

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INDUSTRIES, INC.

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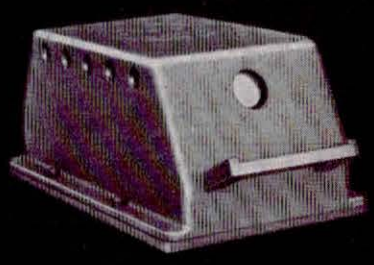
# Why spend the capital to buy it?

# Will it detect hot roller journal bearings?

# The Servosafe® Hot Box Detective System



Let's face it, the purchase of a Servosafe® Hot Box Detective System is a capital investment. When you buy such a system you're going to be spending a substantial amount of money.

The thing to remember is that you're not buying hardware alone–you're buying a *data processing cost control system!* Compare the cost of a Detective System with that of a small computer, and you'll realize it's a relatively modest investment. For that investment you can have a record of every journal that has passed the scanners.

And for that investment–because of the very nature of the system–bearings that are running hot are located so that something can be done about them before they fail. Records show that only one out of ten abnormal journals detected by the Hot Box Detective System has needed a new wheel set. With the old visual detection methods, nine out of ten journals had to have a new wheel set. The savings in repair and shop work can be immense!

To be blunt, you buy our system to avoid one of the greatest capital losses a railroad faces–a wreck. Our system locates hot boxes before they result in axle burnoffs that are the largest single cause of derailments.

You can't–and we can't–estimate the cost of a wreck in advance. We can only quote what one railroad official said to us: *". . . Save one wreck . . . and the Servosafe Hot Box Detective System has paid for itself."*

If cost control is a prime management objective for you, consider the Servosafe Hot Box Detective System. We'll be glad to answer all your questions about it. Write us at the address shown at right. Or call collect.

Yes, we find them every day. And Servosafe® does it better than other detecting devices, too.

While it is true that the hot box incidence rate is lower for roller journal bearings, hot boxes still occur. And when they do, they approach a critical condition faster. The roller bearing disintegrates rapidly, without the time lag common to friction bearings. Your detector must spot the hot bearing fast. And the fastest way for you to spot it is at the source.

For the detector to sense heat at the wheel hub, side frame or arch bar, the heat has to dissipate–and that takes time–time you don't have with a hot roller journal bearing.

Servo reads what is actually happening –*when* it's happening and *where* it's happening. We read the heat at the source. After years of research and field testing, Servo selected its "slant-aspect viewing" design as the most efficient and reliable method of scanning. It is patented and exclusive with Servo.

The scanner's line of sight is focused at a relatively small spot on the side of the journal box. As the train moves away, the spot moves upward and inward along a diagonal line. If the train is approaching, the path is the same, but the spot moves downward and outward with the movement of the train.

A Servosafe Hot Box Detective System is your answer to the hot roller journal bearing problem. Your answer to efficient and reliable hot box detection. Write us today with any questions pertaining to *your* system.

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Write for a free brochure on the Servosafe Hot Box Detective–the electronic journal bearing monitor that cuts railroad operating costs. Servo corporation of america, 111 new south road, hicksville, new york 11802, 516-938-9700

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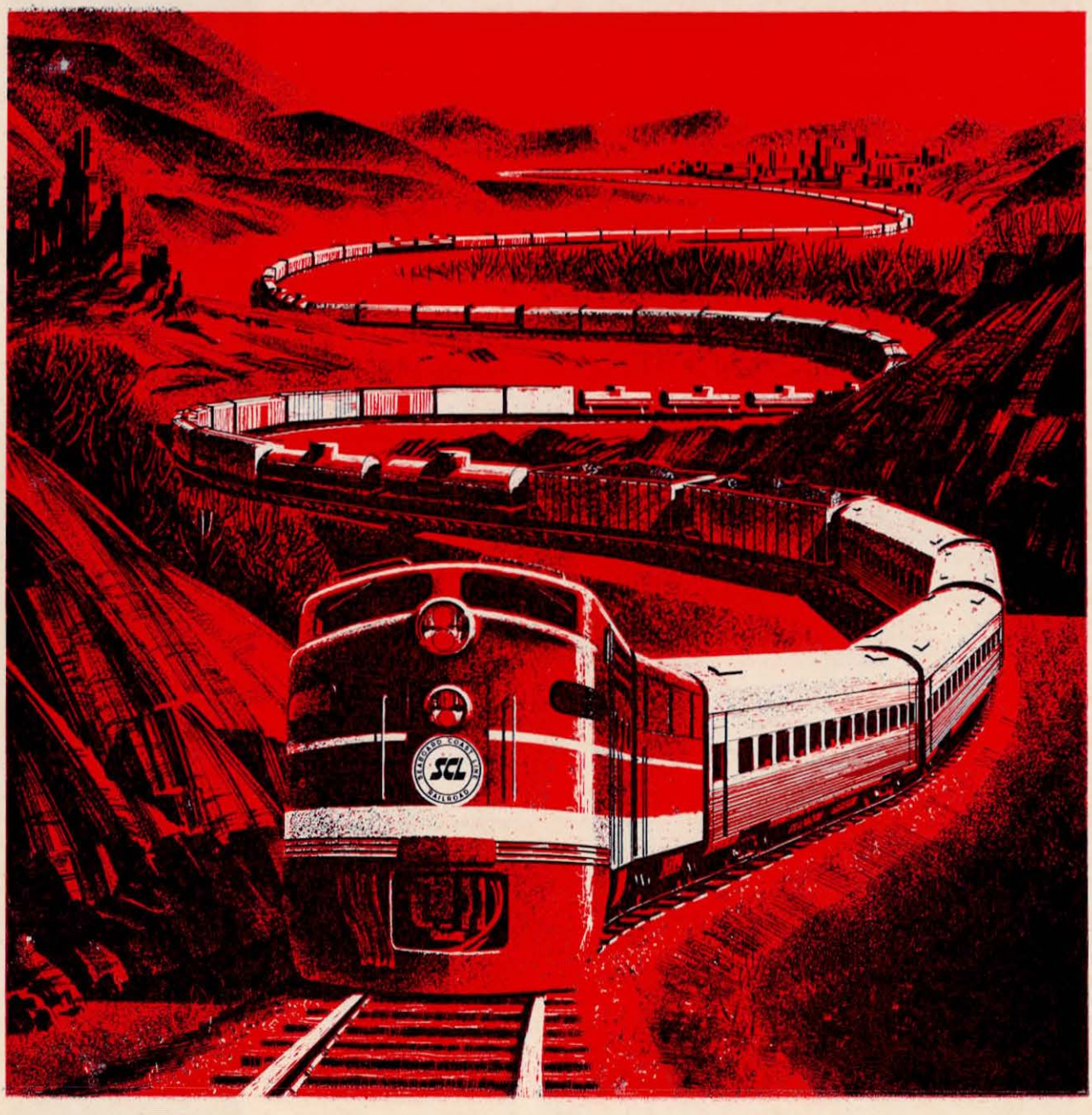
# Seaboard



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## Building a new future with a 600-mile train.

60,000 passenger and freight cars—enough to make up a 600-mile train.

This is the new Seaboard Coast Line. It is also 1,000 locomotives. Some 10,000 route miles of track.

And service—better service with greater economy—that assures growth and success of the Seaboard Coast Line as the nation's newest and eighth largest railroad.

Faster, more dependable and flexible schedules. More direct routing. Improved port terminal facilities. More specialized equipment. Reduced loading minimums. Elimination of switching charges.

As the Seaboard Coast Line serves shippers and passengers in six Southeastern states, American Oil continues to offer technical assistance and convenient supply points for diesel fuels and lubricants.
American Oil Company, Chicago, Illinois 60680.
"You expect more from American and you get it!"*

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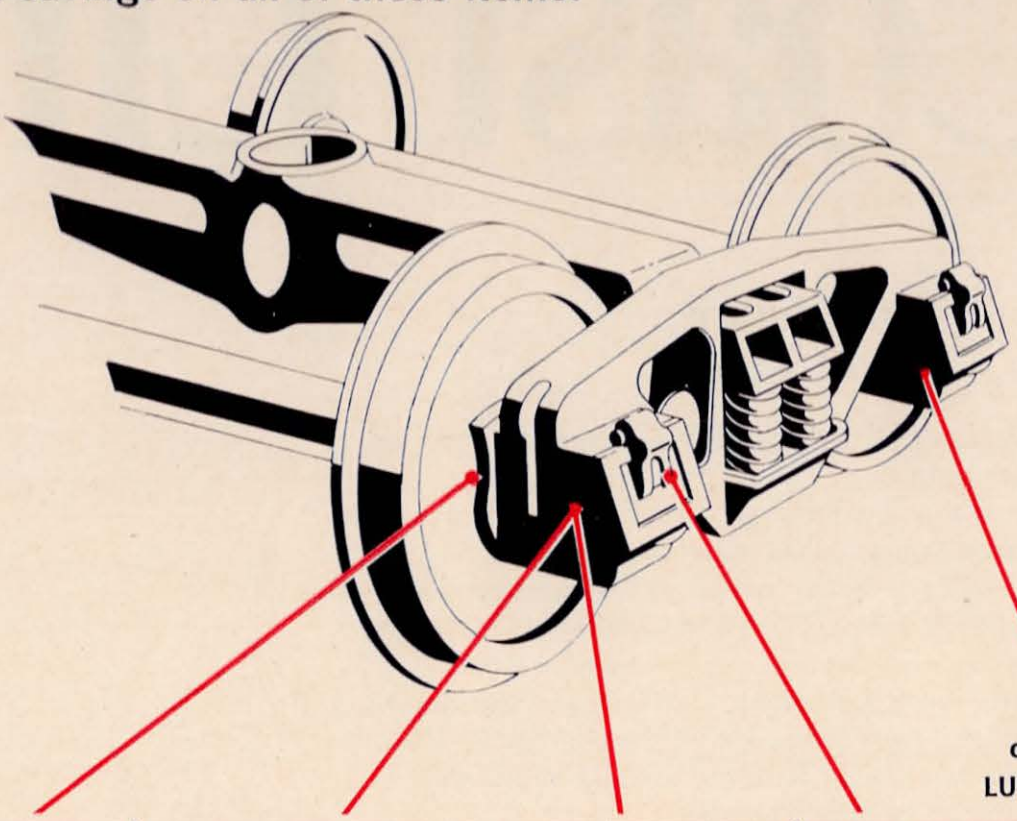
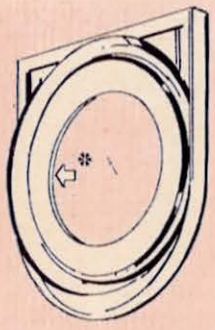
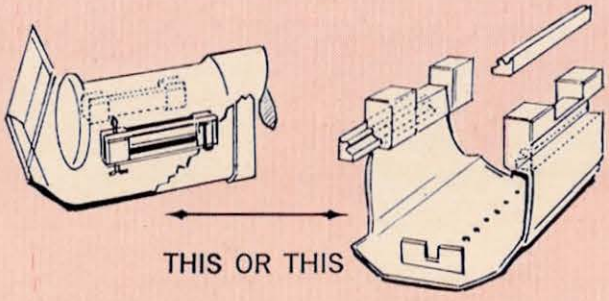
. . . introduces its fine family of service-proven products to meet today's high speed and high capacity railroading with a careful eye on your budget. If you are budget minded (and who isn't), we offer you our economy family package at a substantial savings on all of these items.



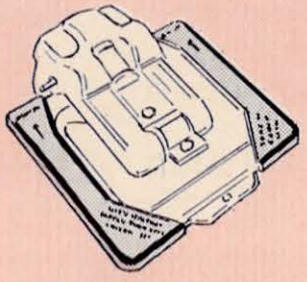



Service-proven "Robco" journal box rear seal; exclusive self-lubricating feature.*




Type "W" Journal Stop, double and single contact, for welded installation.

Service-proven "Security" insert journal stop for use in rib or non-rib type.



Unity Snap-on Easy-Ply lid seal; improved; double seals all journal box lids.

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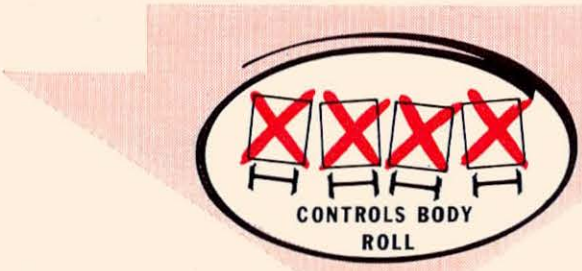
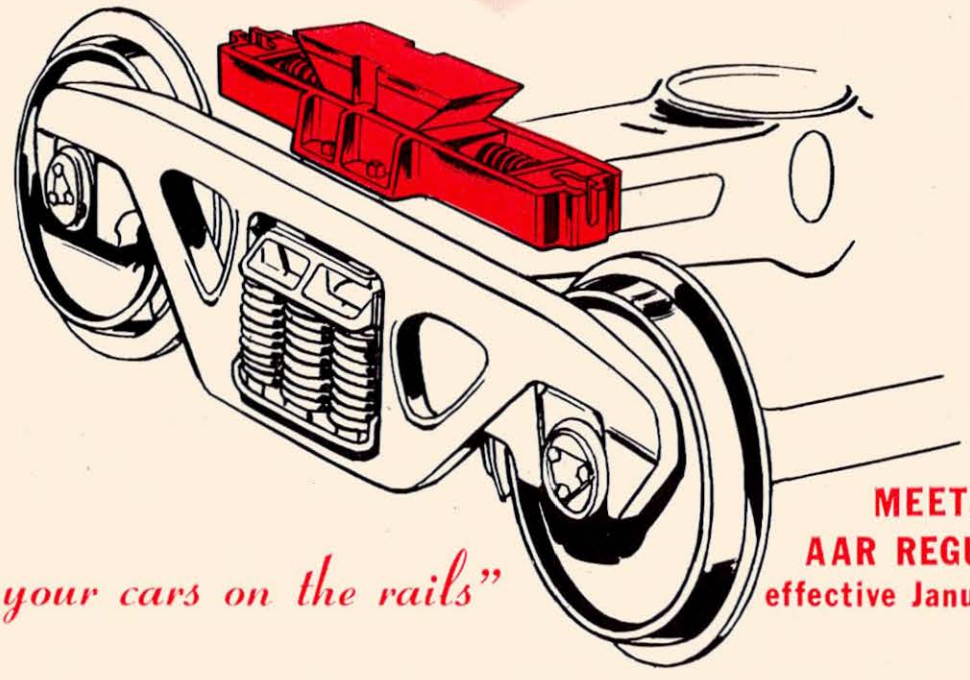


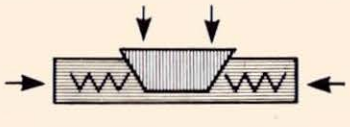
*"Keep your cars on the rails"*

**MEETS LATEST AAR REGULATIONS**
effective January 1, 1968

***. . . and here's our "New Addition"***
***(naturally we're proud)***

## UNITY NO SWAY® SIDE BEARING STABILIZER

A new concept in Sway Control



- No modification required • Replaces standard side bearings.
- Longer life to cars & trucks made possible by friction wedges dissipating energy.
- Reduces body roll for greater security and dependability.

SUCCESSFULLY TESTED AND PROVEN ON NUMEROUS RAILROADS AND NOW OPERATING IN CONTINUOUS SERVICE

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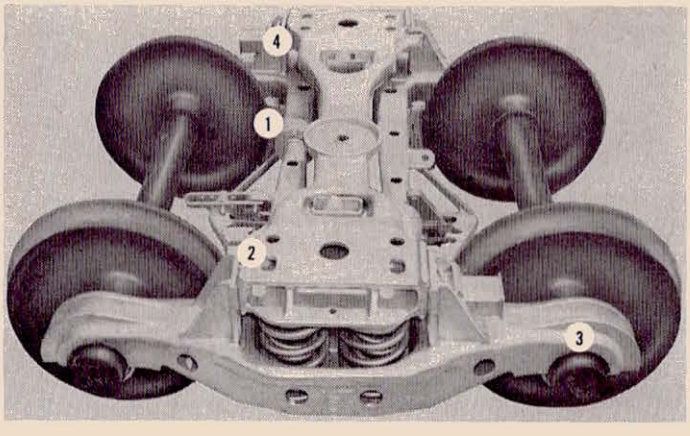
# who said truck design was obsolete?

## we did...
## and we did something about it!

• First, we studied operating records, determined what was causing trouble in the old trucks, what was adding to your costs. • Then we designed a truck that was simple, easily installed, easier to maintain, yet eliminated the wear points and provided protection for any lading. • On road tests, the Rockwell Truck ran ten times as far as an ordinary truck (in fact, it's still running). Repair and rebuilding costs were at absolute zero. • The new Rockwell Truck is now available for service on your high-mileage, high-speed cars. A trial carset is available for any testing you want to give it. • Just write to Rockwell Mfg. Co., LFM-Atchison Div., Transportation Casting Sales.




## what's the difference? this:

1. A spherical ball bearing in each transom equalizes the ride regardless of track condition • Longer spring travel, for both vertical and lateral cushioning, softens the ride • 2. Added lateral in the bolster improves ride quality • Fewer wearing points reduce maintenance costs • 3. Journal bearings are uniformly loaded, have lateral cushioning. • 4. Non-metallic snubbers dampen lateral and vertical displacement • Machined wear plates have close tolerances • Higher, wider spring location reduces sway and roll • Tram is accurately maintained, reducing flange wear.

RPI Member

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MANUFACTURING COMPANY

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10068

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# How can one hopper coating be right for grain and caustic too?

## It can't.

## This booklet tells why.

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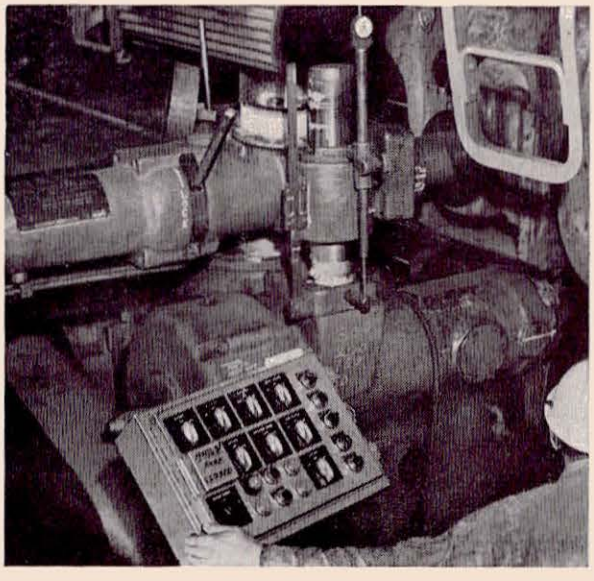

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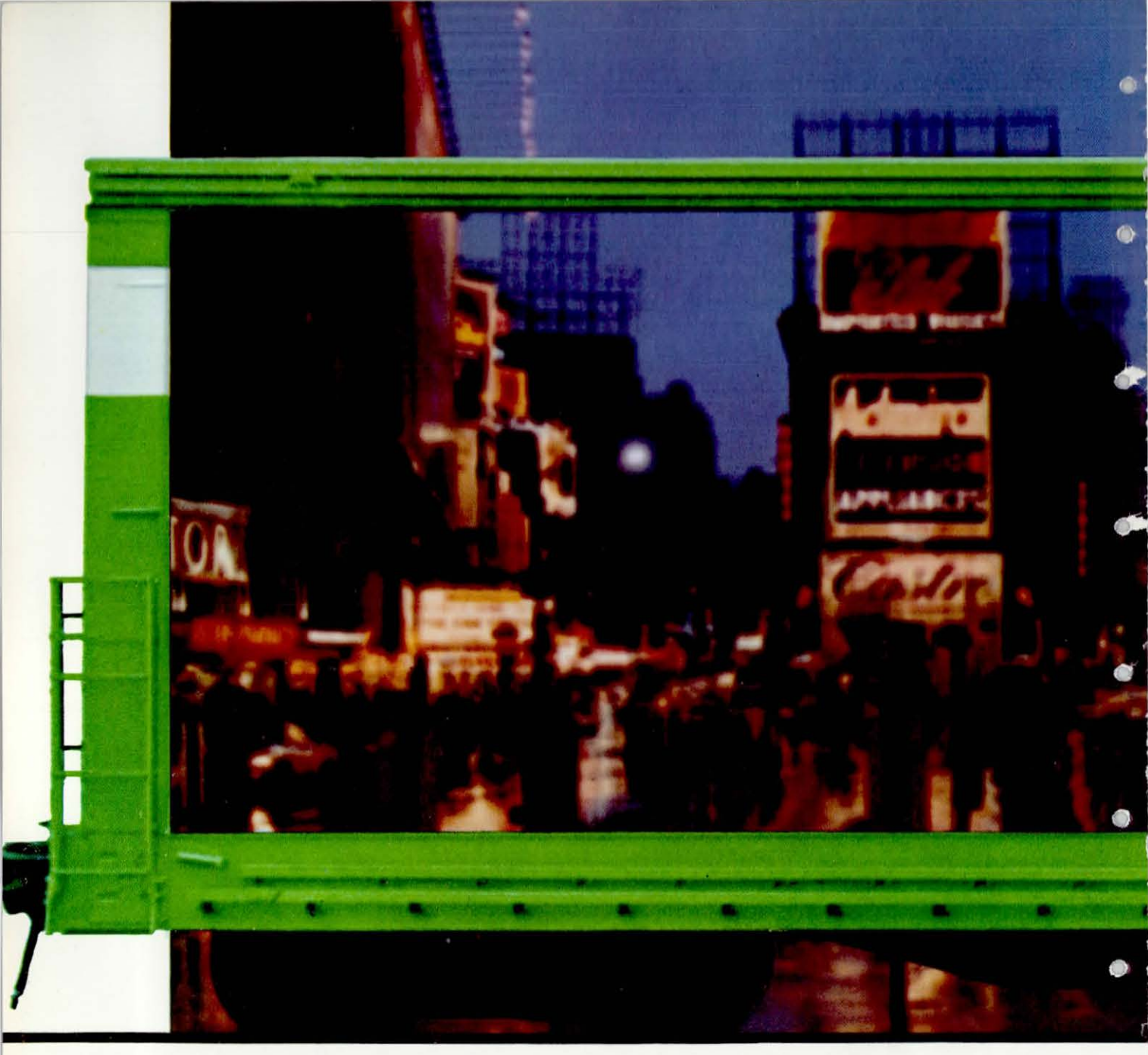

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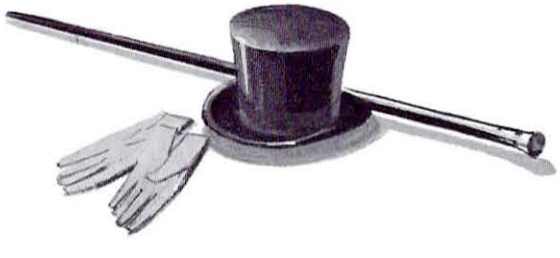

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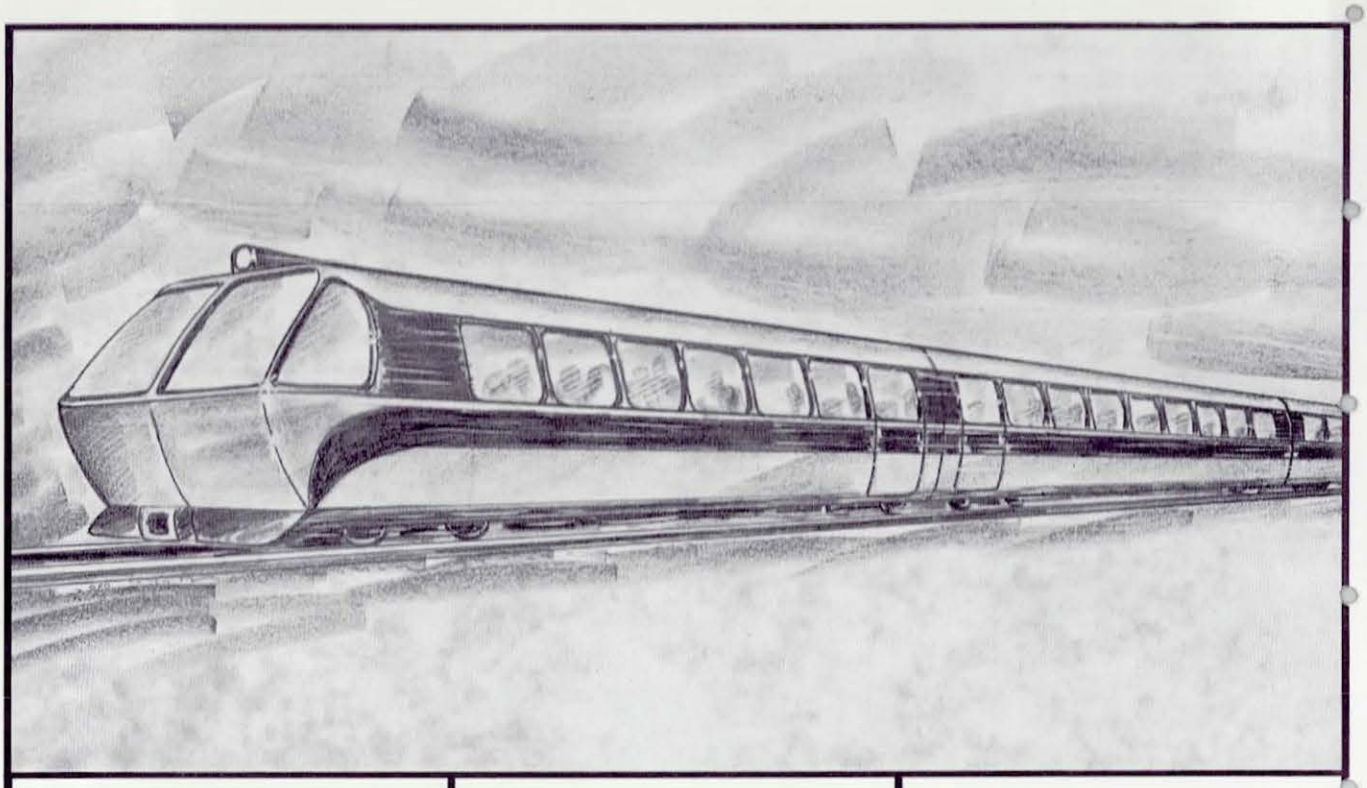

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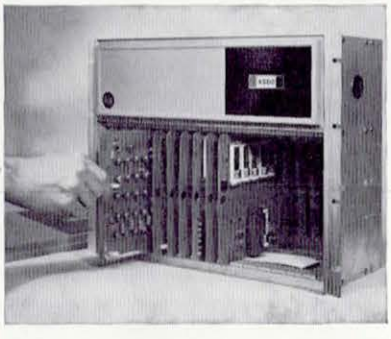

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A few weeks ago, in a thing called the Hula Bowl, a team of college football all-stars representing the South outgained the North, 320 yards to 319. The North won the game—50 to 6.

Any railroad man watching that post-season extravaganza could have shed a sympathetic tear for the boys from the South. Railroads also did quite a few things right, in 1967. They seemed to be gaining quite a bit of ground. And they wound up getting belted, when the final score was added up.

It's a little early to say whether the South will rise again, in next year's Hula Bowl. But it does seem safe to predict that the railroad business will pull a comeback in '68. Things may not be quite as good as they were in 1966—but they'll almost certainly be better than they were last year.

● **The year in preview.** Three weeks into '68, here's the way the industry's fortunes are shaping up:

—Freight traffic which didn't measure up to expectations last year, should get back into the rising pattern of the '60s in 1968. A Railway Age survey shows almost unanimous—though cautiously phrased—optimism among chief executives of major roads. Projected traffic and revenue increases range from a couple of percentage points to as much as 8%, with western roads ranking highest and southern and eastern lines somewhat lower.

# MORE TON-MILES . . . BIGGER SPENDING

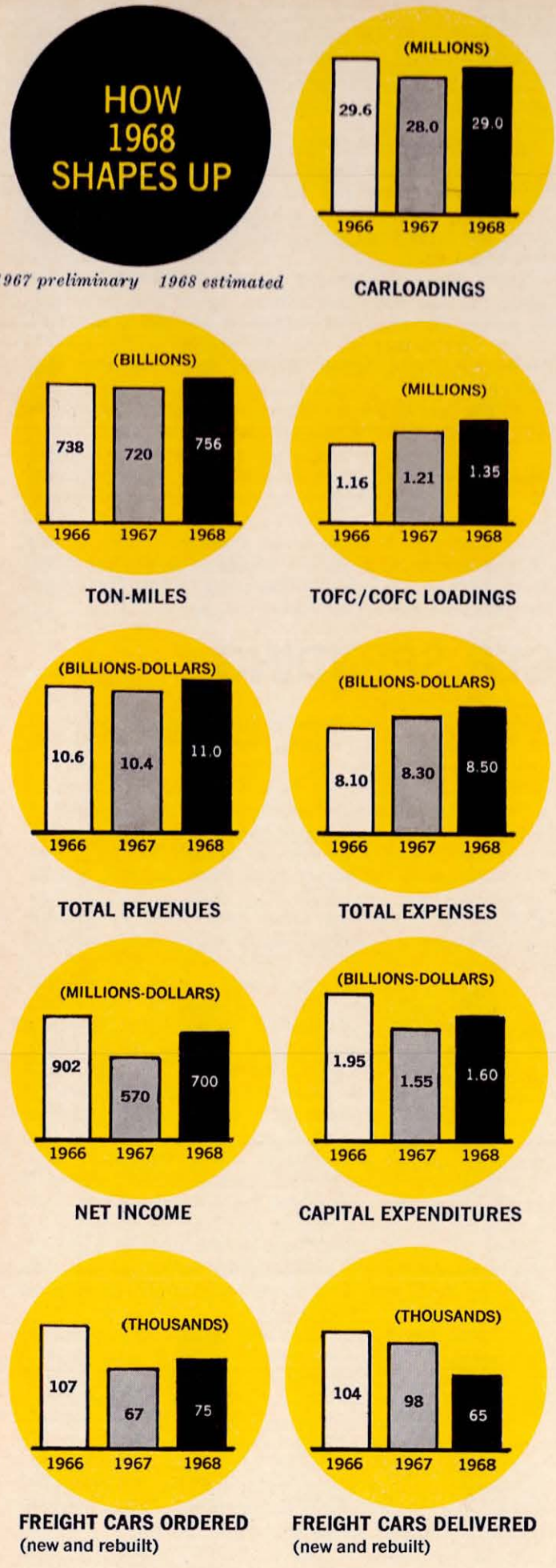
By GUS WELTY

—Net income will probably run noticeably higher for at least the first six months. For the first half of the year, defense shipments will continue at a higher level. Steel users can be expected to build inventory in advance of a showdown between the producers and the United Steelworkers. Last autumn's freight-rate increase will give revenues a boost they didn't enjoy in first-half '67. All of these factors could be significant. One chief executive, for example, looks for an increase of as much as 30% in January-June steel shipments alone. After June 30, however, forecasts have to be hedged—as the imponderables start piling up.

—The new year may be a wild one in the railroad-equipment marketplace. Capital spending in 1967 totaled about $1.55 billion, down from the record $1.95 billion in '66, but still the third highest figure on record. Now, there's at least one forecast calling for first-half capital outlays to drop 25% below the comparable figures for '67. But many roads—perhaps a majority—think spending totals may surge, along about mid-year. Adding more than the usual amount of uncertainty will be the merger situation. Logically, Seaboard Coast Line could be expected to make substantial merger-related expenditures this year. And there's the very real possibility that both the Penn Central system and the upcoming Great Northern Pacific & Burlington consolidation will be flourishing in '68. If they are, spending totals will likely go up—with probable emphasis on fixed-property improvements.

—Labor and material costs will continue to rise. Operating expenses, as a consequence, may run a tight race with revenue increases. The big squeeze in '67 came about when revenues declined by about 2.4% while expenses were climbing by about the same percentage. In '68, however, railroads will have 12 months' benefit from the '67 freight-rate increases. They may apply for further rate boosts. So, the combination of higher traffic levels and higher rates should bring improvement in the income/outgo relationship—and, perhaps, in the net-income column.

—On the railroads and in industry generally, labor




negotiations will bear close watching. On the basis of the settlement reached with the biggest rail union, the Brotherhood of Railway and Airline Clerks, the industry may be able to go through '68 with wage-cost increases no worse than those experienced last year. The effort is under way to bring "expiration" dates of contracts into line—and if this move succeeds, it should bring both practical and psychological benefits.

● **How the thinking goes.** As a group, top railroad officers share a conservatively hopeful view of '68. As a group, they're also more-than-ever aware of the sudden jolts on the industry that even minor swings in the general economy can have. One eastern-road president, who's a real veteran in the business, sums it up: "I've never known so confusing a picture, except when the banks were failing in 1932."

Another easterner spells out a few specifics, on the dark side and on the bright: "First of all, one of the major problems, facing the railroad industry and the nation generally is the wage inflation spiral. How far will it go? At the same time, the business outlook for '68 depends upon whether some of the country's leading industries will be faced with work stoppages—and upon what action government will take with regard to credit, taxes and the war in Vietnam. Transportation closely mirrors the nation's industrial production—and a forecaster has to have answers to these questions. One thing, though, is certain: Freight can now move more efficiently than ever by rail—and railroads can be expected to increase their share of the nation's total freight traffic."

For the most part, railroad people seem inclined to write off 1967 as a year of non-recurring disappointments. They're not inclined to view last year's general economic slump as anything permanent. They do cite strikes, storms and crop failures as significant factors in the '67 slide.

● **Getting down to specifics.** Reading from West to East, here's how the industry's leaders are looking at the last Leap Year of the '60s:

—Two of the smaller western roads lead the pack in taking the bright-side view. One road's president notes that "we're currently forecasting increases in traffic and revenues of 7% to 8% above those in 1967. Anticipated traffic and revenue totals should approximate those of '66—a record year . . . Capital expenditures in '68 will slightly exceed those of 1967, though they'll be about 20% below 1966 totals." From the second western line comes a forecast of a 5-½% increase in ton-miles "which should result in an increase of 7% in freight revenues. This, of course, assumes that rail labor negotiations will be concluded peaceably, that there will be no steel strike, and that there will be no significant change in the volume of defense shipments." Substantial traffic increases, it's worth noting, are expected in at least six major commodity categories.

—Elsewhere in the West, forecasts are somewhat less bright. But they still call for improvement in '68. One road operating in the heart of the Midwest sees revenue ton-miles climbing by 3.5%, with an increase in freight revenues of 4.3%. A neighboring road doesn't look for much improvement in traffic levels—but it does anticipate a significant increase in revenues. Among a quartet of other western lines, projected traffic/revenue increases range from a low of 1½% to a high of about 5%.

—Commodity forecasts in the West point to broad-based gains. Estimates from close to a dozen roads show

probable increases in grain and other agricultural products, from ore, packaged foods, copper products, automobiles and parts, lumber and lumber products, iron and steel products, potash, ordnance, coal cement and miscellaneous manufactured products. Piggyback is again a unanimous winner on the traffic-increase charts.

—Down South, optimistic projections are the rule. One major road anticipates volume and revenue increases of 3% to 5%, "with some possibility that tonnage moved may increase by as much as 8%, in which case we would expect gross revenues to increase by about 6%." Another line's president shuns a percentage estimate, but notes that "the outlook is bright. We have been enjoying a consistent growth in freight revenues. We expect this to continue throughout 1968, barring some unforeseen upset in the general economy." The chief executive officer of still a third road sees an increase of 3% in carloadings, with a revenue gain of more than 5%. And a fourth southern-territory carrier sees smaller increases—1.4% in cars handled, 2.5% in revenues——over a wide commodity range.

—In the South, most roads are anticipating traffic increases that come close to being across-the-board. What's likely to be up? Grain, coal, pulpwood and wood chips, automobiles and parts, iron and steel products, fertilizer, paper, cement, chemicals, lumber—and piggyback.

—Other eastern roads see '68 traffic and revenues on the upside. But with a couple of exceptions, the projected increases are rather modest. One major road looks for a 4%-to-5% revenue increase on ton-mile gains of 2% to 3%; a second carrier thinks a 4%-to-5% traffic boost may send revenues up by about 8%.

—In the East, anticipated traffic increases are on a somewhat narrower base. Roads participating in Railway Age's survey tend to limit their upside forecasts to such commodity areas as coal, chemicals, autos and parts and iron and steel products.

● **Shifts in emphasis?** As the industry moves closer to the 1970s, its emphasis on building business with better service isn't slackening—but the specific areas of emphasis may be changing. The quality of the transportation product itself is getting a lot more attention—and capital-spending programs are tending to level off for the time being.

For many roads, there's good reason for this switch. The industry's total capital expenditures have amounted to almost $7.6 billion in the past five years—and those dollars have gone a long way toward eliminating obsolescence in motive power, rolling stock and fixed plant. With property and equipment in much better shape, more roads are in a position where they can concentrate on service improvement. They're relatively free of the physical limitations that were confounding them—and their customers—a few years ago.

● **What affects spending?** At the moment, it would seem that '68 will show a slow start and a fast finish for industry spending programs. And you can get all sorts of guesses as to what will happen to capital-improvement programs if traffic and revenues head upward sharply.

From one major eastern road comes the observation that capital-spending programs probably would not be increased significantly as a result of an improvement in gross or net: "Most of our capital-investment decisions are based on consideration of long-term factors. Therefore, the level of investment would not normally be influenced by an unexpected increase in one year's earnings."

At the other end of the opinion-spectrum is a southern-territory carrier with a quite different slant: "Would we consider raising capital-expenditure programs if marked improvement in revenues and net materialize? Yes. Historically, this is almost always the pattern with railroads. A clearer outlook, with business on the upswing, could trigger more capital spending."

Where's the majority opinion lie? On the side of boosting spending quickly, if revenues and net seem to justify it. The vote isn't even close—with 80% of the chief executives in the RA survey casting their lot for spending programs that roughly follow business demands and revenue/net patterns.

A sampling of presidential opinion: "I'm sure that a substantial improvement in revenues and net income would put us in a position to increase property-improvement budgets during the year, where necessary". . . . "If it becomes apparent that revenues and net are going to reach higher levels than we anticipated, I think it likely that we would increase our level of capital expenditures". . . . "With improved conditions, there is a good chance that our capital budget will be increased during '68, provided that necessary financing is available at acceptable rates". . . . . "If we have an increase in revenues and net beyond our current forecasts, we would expect to increase our property-improvement budget to keep pace with business conditions". . . . "We've prepared a budget on the basis of what we can foresee now—but we're also preparing an alternative program on a more liberal basis, to be kept on the shelf against the possibility that favorable action will be taken on a freight-rate increase."

● **Ups and downs.** For some roads, capital-improvement planning already calls for increases from 1967 spending levels; for others, the 1967-68 totals will be about even; and for several, including a few of the biggest spenders in the 1965-67 period, '68 will see a rather sharp cutback.

For one reason or another, it's the smaller roads which seem to be pushing the capital-investment button with the most vigor, at least relatively. Soo Line, Western Pacific and Rio Grande, among others, rank well up on the list of roads which now expect to boost spending in '68. In the middle category striking a spending balance between '67 and '68, are such roads as Louisville & Nashville and Santa Fe. Most other roads, at the moment, show up on the cutback sheet—but, almost without exception, they're also the roads which indicate the best chance of adding to improvement programs later, if business conditions warrant.

In effect, then, the capital-expenditures situation hasn't changed much through the final quarter of 1967. It is, still, much as Union Pacific's Frank E. Barnett said it was in mid-October: "It's very doubtful whether we will see matured plans which can be transmitted into the form of orders before the first quarter of 1968. As near as I can tell this seems to be a general malady of the industry at the moment."

Barnett, however, went on to express extreme confidence that railroad buying will increase in '68. And on the basis of other chief executives' year-beginning comments—some on the record, most of them not for attribution—the forecast of a slow start and a fast finish looks valid.

● **Minding the store.** With the flexibility implied by cur-

# GOAL: BETTER SERVICE, LOWER COSTS

rent capital-improvement planning, it also seems certain that top management will be keeping even closer tabs on the state-of-the-business, week by week and day by day. Service analysts and service promoters will be much in demand. So will marketing managers with the ability to draw meaningful forecasts from their commodity and industry studies.

As usual, cost control will get top-level attention—but, perhaps with a fuller realization of the point where the law of diminishing returns sets in. The president of one major southern road puts it this way: "The availability of highly sophisticated computer techniques for evaluating productivity of capital expenditures and of labor costs makes cost-control determinations possible that reduce non-productive expenditures to a minimum. We must work in this direction even though, at times, some of the older ratio measurements—the operating ratio, for example—show up more poorly than under earlier methods of cost control. A favorable operating ratio, obtained at the cost of customer dissatisfaction and loss of business, is not at all desirable. We now have the management-information resources to enable us to determine with reasonable assurance the effects upon both gross revenues and net income likely to result from changed practices intended to control operating costs—and these will be used more widely."

From the Midwest comes a comment expressing similar thinking on the balance between cost and service: "For '68, all areas of operation will be under scrutiny, to help us offset wage increases and higher material prices. We'll attempt to control costs by even more concentrated attention to manpower efficiency, automation, computerization, transportation technique itself. We recognize the negative nature of some of this—and of course we will continue to stress our marketing efforts and our sales efforts and our industrial development efforts."

Finally, from the chief executive officer of one of the biggest of all railroads: "Apart from the continuing effort to increase productivity, we plan to pay great attention to those expenditures which are susceptible to adjustment in the short-term without affecting our future earnings potential. I have in mind, in particular, expenses related to the transportation and maintenance functions. But we are looking at all elements to make doubly sure that expenses, insofar as possible, quickly reflect the volume of output. On a more positive note, we have recently embarked upon an intensified program to relate, more precisely, the demand for our freight service, in terms of both volume and quality, to the costs involved—so that we can achieve maximum penetration of the market at minimum cost."

• **Where the stress is.** With management-information systems fairly well advanced now on most major roads (and on quite a few smaller ones), more opportunities seem to exist for marrying better service to lower-cost operation in several specific areas. High on the list: (1) Centralization and coordination of work centers; (2) improvement of terminal-operations practices; and (3) elimination of services which can't be made to pay in the interest of improving the quality of those services which do pay.

Not too much help, for railroads or any other transportation mode, can be expected from the outside. The president of a major eastern system does view as "a bright hope for the industry . . . the trend in modernizing national transportation policies and the gradual development of a basic transportation program at all levels of government." But most observers would still probably look for slow progress here—with other domestic issues loudly competing for attention, and with pre-election festivities already seeming to dominate the thinking of many in government.

More than anything else, '68 may become a year in which railroads will have to take a firm, new grip on the lift-yourself bootstraps.

There will be, for instance, new pressures on the expensive management-information systems which railroads, with the help of the computer people, have put to work. There will also be a severe test of what many roads now call marketing—and some companies may find that platitudes are no substitute for performance.

• **Supply and demand.** There should be, in addition, a whole new look at what really is demanded by the user of transportation—in other words, what kind of service actually sells profitably. Rio Grande makes a strong case for fast, frequent, short-train service. Reading's "Bee-Line" concept, born in '67, seems to indicate that labor organizations have enough flexibility—and enough of a long-range viewpoint—to take a flyer on operational innovation. Santa Fe's "Super C"—which began service less than a week ago—will perhaps bear the most watching. Its success or failure could go a long way toward proving whether shippers will pay a genuine and substantial premium for genuine and substantial premiums on service. If the 40-hour speedsters between Chicago and Los Angeles get the business more than a few roads may climb on the money-wagon. And in more than a few executive suites, old concepts of rail service—those based too largely on serving the great god Volume—will be under attack. Success of an operation like "Super C" could lead to a real broadening of rail-service offerings—and an overall realization that railroads do have the potential for price/service competition over the full spectrum of transportation demand.

• **Is this slump necessary?** To an increasing extent, service-oriented top-management people are looking for the positive approach to both good and bad years. They're wondering if things like 1967 really have to happen. They're studying the trends in minislump years, when all modes of transportation seem to suffer alike. And they're asking whether it's possible for railroads, with their service potential and their cost advantage, "to do the kind of marketing job which would effectively make the industry slump-proof." In other words, they're aiming for the kind of competitive strength which, in a sagging year like '67, would hold traffic levels even and thus give the industry a bigger relative share of the market.

If nothing else, the past year proved that improvement in the economy isn't guaranteed. It also proved that no transportation agency, including the railroad industry, has grown quite enough white corpuscles to fight off the infection of an economic cutback.

Most of the projections for '68 point to an improvement in general economic conditions. Government fiscal and monetary and taxing policies are up for grabs, to be sure, and nobody knows whether to plan for peace or war in Southeast Asia, and nobody can tell about Big Steel's labor negotiations, and nobody has a sure winner yet in the November elections. But the over-all outlook is not bad.

The railroad industry, for its part, did manage to weather the 1967 setback in somewhat better fashion than it's handled previous economic readjustments. On that basis, there's fair reason to look for a return to upside performance in '68. Assuming skillful management, continued willingness to invest in improvements and a little bit of luck, there's even reason to project a railroad industry that won't diet every time the economy gets heartburn. ■

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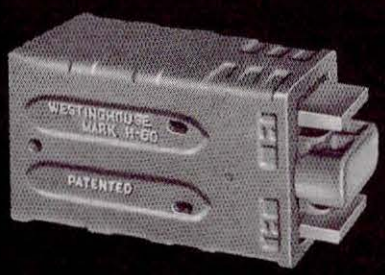


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'68 OUTLOOK

# Over $1 billion will be spent

**The nation's carbuilders are viewing their prospects for the current year with a certain degree of optimism. One of the problems in new-equipment acquisitions is that of financing.**

By F. N. HOUSER, Associate Editor

Spending for new cars should top $1 billion this year, up almost 20% from 1967. In terms of units—and the old numbers game has lost some of its significance because of today's higher per-car cost—the market for new cars should top 60,000.

Most significant about 1967 was the reappearance of the "peak and valley" pattern in railway car buying. The nature of that valley varied for different carbuilders and suppliers. What was only a gully for some turned out to be an abyss for others.

● **Ahead—a year of uncertainty.** Actually, operating levels for most firms held up well through much of the year. But with few new-car orders going on their books, builders' backlogs sagged steadily until 1968 dawned with the lowest such accumulation since 1962. There seems no doubt that 1968 will be a year of uncertainty in railway car buying. But builders go into it stripped of any illusion that railroads would react in any but traditional fashion in the face of even a minor traffic decline.

Some railroads are holding 1968 car buying in abeyance to check their traffic trends further. Others are already on the record. Union Pacific Chairman Frank E. Barnett told a recent RPI meeting that his road has "plans on the order of $100 million a year" for equipment, but because of many uncertainties had then scheduled only 25% of that figure for 1968. "The first quarter of 1968 will see many, many railroads making up their minds to go forward with their equipment programs." Barnett predicted.

Reading is already on record with $6 million for cars; Northern Pacific with $11 million; Great Northern with about $20 million. William J. Quinn, Burlington president, recently observed that, "In the long run, if the railroad industry is not able to find some way of providing equipment, it is going to suffer from constant and serious traffic erosion. The car supply problem is one that plagues the executive departments of railroads like no other."

● **The financing problem.** Financing is the major problem for many. Leasing is growing in popularity. This is not peculiar to the railroad industry. A recent survey of a thousand major U.S. industrial firms determined that nearly 90% acquire much of their equipment through leasing. When old-line financing tools—conditional sale agreements and equipment trusts—will provide railroads with the lowest cost source of funds, railroads rely on them. But the cash squeeze is seeing the carriers attempting to have their suppliers carry more and more of the financing burden.

● **Improving efficiency.** New York Central President A. E. Perlman recently pointed out that traditional grain movement in 40-foot box cars is "obsolete and inefficient, both for the grain-consuming public and the railroads. . . No longer is the box car the all-purpose answer to all transportation needs." NYC sees half of its grain traffic moving in covered hoppers in the next five years, up from 26% for the first part of 1967.

Illinois Central's "Rent-A-Train" concept for providing trains of 86 to 115 covered hoppers on a yearly rental basis probably will come to fruition this year. It is arranged for the transportation of grain from Illinois points to five Gulf ports for export. The U.S. Department of Transportation recently lauded it as a "significant breakthrough in volume rate making, adapted to promote the more efficient rail movement of a highly seasonal commodity to the mutual benefit of both the carrier and shippers."

But even this is not enough, according to John S. Carlson, ACF Industries vice president and general manager of its Shippers' Car Line Division. He feels that the freight train of the future cannot be developed piecemeal. "We have been tackling shippers' needs in a modest, but quite effective way, one new piece of equipment at a time," he explains. "I consider the unit train as one car repeated many times. It is not my idea of the freight train of tomorrow. The railroads' prime objective today is to offer better and less costly freight transportation. This requires equipment advances that are basic, not just refinements of old concepts."

● **Far from resolved.** Carbuilders seem to be viewing their prospects with some degree of optimism. Precise forecasts, however, are not easy to come by. E. T. Ahnquist, Pullman-Standard vice-president—marketing, points out that "While, normally, railroads have their buying schedules set for the coming year, many have deferred any programs to better survey the early 1968 economy and see if the predicted increases in earnings and traffic are on the horizon." And should there be such impetus, "it would mean that any boom in the car market would not be reflected in deliveries until the second or third quarter."

## Increase of 15% is forecast

ACF is forecasting a "modest" increase in car orders for the industry, "something in the order of 15%." According to Henry A. Correa, ACF president, "the most probable factor for producing a resumption of volume car buying would be a nationwide increase in ton miles. When this increased volume is translated into railroad earnings, it should create a resumption in car buying. Because of

# for freight cars

leverage, a modest increase in volume can result in a complete turn-around. ACF expects to see this happen in 1968's second quarter, although we had originally thought it would occur in the first quarter."

● **Should be better.** After noting that the carbuilders' backlog at year end had not been so low since 1962, when it was 16,122, C. M. Wright, manager of railroad products sales for Bethlehem Steel, adds that "The expected resumption of buying with restoration of the investment tax credit will probably not be felt until there is an improvement in revenue ton miles and railroad earnings." Encouragingly, he continues, "such an upturn appears to be in prospect for 1968."

When revenues top those of 1967's third and fourth quarters, J. L. Ortner, Jr., vice president of Ortner Freight Car Co., anticipates that buying will resume. "Looking at the picture optimistically," he adds, "we would hope that the second and third quarters of 1968 will be such that many railroads will again enter the new car buying picture with more vigor than they have within the past year."

"We feel about the same as a year ago," says C. H. Wright, vice president—sales for Thrall Car. "The political climate should be taken into consideration along with the economic." Thrall looks with trepidation at pending mergers and improved utilization of the present car fleet as seriously affecting carbuilders. ACF recently took the opposite tack on this, stating that the anticipated 10% increase in utilization which should result from automatic car identification (RA, Dec. 18/25, 1967, p. 40) should not be seen as a depressant on car buying. "Increased efficiency in speed and dependability . . . will generate increased demand for new freight cars," says ACF.

J. W. Bergen, vice president and general manager of the Railcar Division of Evans Products is approaching 1968 "with cautious optimism." He sees an increase in buying during the second quarter "because the railroads have a definite need for cars to meet shipper needs." Evans looks for a lowering of interest rates and the earliest possible resolution of steel and automotive labor negotiations as the principal spurs to a resumption of volume car buying. "The earlier these happen, the better for the economy and for our particular industry," says Bergen.

● **'If' is the word.** At Fruehauf's Magor Railcar Division, as at the other carbuilders, "if" is the word. "Volume buying will resume when railroads are sure their income will support their buying programs," reports Magor. If good revenues continue through the first quarter, Magor expects car purchasing to pick up in the second quarter, with volume buying in the last half of 1968.

Berwick Forge & Fabricating, one of the newcomers to carbuilding and a survivor of the 1967 shakeout of such firms, is anticipating a "heavy volume" through 1968. North American Car anticipates its leasing operations will require continued building of cars at about the same rate as 1967, when 2,000 new units were added. It is expected that an even higher percentage will be high-capacity tank cars than was the case last year. Other car lessors have discerned an increase in their activity during the closing months of 1967 and expect this to continue through 1968. The result should be good production through 1969 as the backlog builds up during coming months.

The Castings Division of General Steel Industries concurs with the consensus that car loadings will largely determine the level of car orders. Backlog of the flat and bulkhead cars which it produces is expected to last through the first quarter.

● **Two months away.** If there is to be a real moment of truth for carbuilders, it may come near the end of March. Pullman-Standard began 1968 with the lowest backlog in ten years and with some curtailment of virtually all its operations. There will have to be additional cuts if orders do not materialize soon, says P-S. Bethlehem has orders "sufficient to sustain a moderate operation in its shops well into the first quarter." Bethlehem, while conceding that operations may be slow in the first half, anticipates that 1968 finally will be comparable with 1967.

Evans has "open capacity" beginning in the second quarter but expects to build 4,000 cars by the time the year ends, approximately the same as in 1967. Magor reports a "low" backlog; production rates were adjusted accordingly.

Thrall laments the "cyclical nature of this business which has resulted in some carbuilders and suppliers having to

## Passenger equipment: Due for acceleration

About the time that the experimental passenger trains for the Northeast Corridor began to really move at the end of 1967 (one topped 170 mph during tests), indications became stronger that the passenger car market itself was due for some acceleration. Carbuilders and suppliers, long inured to a slow (and often profitless) pace, could begin to plan for something a lot brisker.

Not that most of 1967 had lent much encouragement. After orders for more than 650 transit, commuter and intercity cars in the U.S. and Canada in 1966, orders were down 50%. Then, at year's end, an additional 226 transit cars went on the order books—150 for Chicago Transit Authority and 76 for the Massachusetts Bay Transportation Authority.

The New York City Transit Authority, soon to come under the aegis of New York State's Metropolitan Commuter Transportation Authority and due to benefit from a recently voted $2.5-billion transportation bond issue, will probably be ordering 600 cars this year for routine replacement. The Chicago & North Western has just ordered 20 cars to further increase its fleet of push-pull doubledeckers.

Of most significance in 1968 will be the negotiation of San Francisco's Bay Area Rapid Transit District for its first 250 cars. The lead time between the initial planning of a completely new transit system and its first car requirements is a matter of years—often a decade. While most million-person metropolitan areas are now talking transit, many are far from a stage that would be any good for carbuilders.

The Delaware River Port Authority with its initial Philadelphia-South Jersey line moving ahead rapidly, will be the first such operation to get its new equipment—75 cars due for completion in a few months. By then BART will probably have placed its first car order. And with other cities and other government-aided railroad operations coming into the car market soon, carbuilders have reason to be optimistic.

# NEW CAR DESIGNS ARE ON THE WAY

close their doors while others have had major reductions in operations, thereby losing experienced salaried and hourly employees."

While orders are down and there has been some curtailment of R&D spending, most carbuilders are pushing their product development. Pullman-Standard's new Champ Carry Technical Center at Hammond, Ind., opened in 1967, is constantly seeking new car types and features which will help railroads meet the physical distribution challenges confronting their customers.

● **Dry bulk carriers.** P-S is soon to complete and test a new type of aluminum covered hopper car, a concept which grew out of the builder's continuing research in improved equipment for moving dry bulk commodities. The new car will not only represent the latest development in utilization of lightweight metals, but will cram a capacity of 5,900 cubic feet in its 68-foot (over strikers) carbody—the longest covered hopper yet built.

Bethlehem Steel is working on some new car designs which are not expected to be ready for introduction in 1968. It is anticipated, however, that a significant variation of the piggyback car suitable for trailers and/or containers may be unveiled this year. Magor predicts that production of its Flexi-Quad multi-purpose piggyback car, major product of 1967 R&D, will begin this year. The Flexi-Quad, according to Magor, fits the recently announced Trailer Train specifications for an all-purpose TOFC/COFC unit (RA, Nov. 27, 1967, p. 33). The Evans Railcar Division recently completed a second prototype of its movable bulkhead flat car with design variations based on experience with the first unit. The car is intended for handling building materials and other packaged and extra-length products. Thrall reports that although large-scale capital expenditures have been reduced, the firm's R&D budget has actually been increased.

● **Canadian prospects.** Just as in the U.S., the "peak and valley" purchasing pattern reappeared in Canada in 1967, with new car orders down over 50% from 1966. Canadian railroads are encountering the same decline in profit margins as those in the U.S., resulting from a slack in bulk materials handling and accelerating costs, primarily due to wage demands. Any lessening of inflationary pressures now being exerted on the economy of Canada would probably have a positive effect on the railway car market.

## Inflation hurts car buying

On the other hand, according to R. S. Wilson, general sales manager of the Railway Equipment Division of Hawker Siddeley Canada, "If inflation is allowed to move ahead, then the car-buying programs could well be the first victims. Railways have a great capacity for being able to make do with existing equipment in hard times."

Wilson does see, possibly late this year, an upturn in car orders. And, in the long run he is optimistic.

● **Canada's containers.** Acceptance of container service between Canadian and European markets is expected to produce substantial COFC traffic between Montreal and the Toronto-Hamilton area of Ontario. According to Wilson, there are now insufficient general purpose container flat cars to handle the large increase in this traffic that is scheduled to start this year.

An even more bullish forecast on COFC prospects comes from H. E. Foulkrod, senior executive vice president of Fruehauf, Detroit manufacturer of trailers and containers. "As the maritime carriers expand their container service throughout the world," says Foulkrod, "there will be increasing demands for transcontinental movement of containers. Direct-line shipments from the Orient to mid-continent or Eastern American cities, or straight across the U.S. to European cities will become an accepted practice.

"Containers are creating an alternative to the present sea routes through the Panama Canal or beneath the South American continent," explains Foulkrod, "These routes were useful because of the former need to avoid break-bulk handling. By containerizing freight, as much as ten days can be saved by taking the cross-continent shortcut. We believe this trend, combined with technological advances in equipment, will make containerized hauling of freight a significant opportunity for railroads in 1968 and increasingly in the years to follow."

Along with the growth of containerization, Fruehauf is anticipating that conventional trailer piggybacking will also continue to increase. "In many respects," observes Foulkrod, "one might say that piggybacking really proved the value of containerization. For this reason, we expect piggyback trailer and rail container sales to railroads, a most important segment of our business, to rise more than 10% over 1967."

The nagging problem of just what type of car will be required in view of the lack of standardization of trailers and containers persists. Foulkrod sees a trend to 45-foot trailers, but predicts "that second generation containers will be 40-footers to keep in line with the standardization that has gone into the truck and rail transportation fields.

● **Later, not now.** Pullman-Standard's Trailmobile Division reports that containers for rail handling will not make up a significant portion of its orders in the coming year. It is anticipated that railway sales volume will compare favorably with 1967 and that railroads will continue to order mostly dry freight vans and refrigerated units. Trailmobile sees more demand for the "doubles" style trailer (27-foot) rather than the 45-footer, but reports that the 40-foot model is still the most popular by far.

Over-the-road trailers in 45-foot lengths are becoming very common on the Eastern Seaboard, reports Dorsey Trailers, with demand up considerably in 1967 over prior years. "Doubles will get into full swing in 1970 as the basic Interstate Highway System is completed cross country."

Dorsey expects rail sales to increase approximately 15% this year over 1967. "The last half of '67," says Dorsey, "showed renewed activity in developing specifications and requirements for additional trailer equipment after reinstatement of the investment tax credit. Railroads are purchasing semi-trailers in dry freight, semi-insulated and refrigerated van types with platform trailers in lesser quantities. Super Cubes are becoming quite a factor."

Palmer Bayer, president of Realco, operators of the National Railroad Trailer Pool, sees no greater participation in containerization in 1968. "Roll-on/roll-off trailer ship operations which interchange with rail piggyback services are becoming more popular," he says. "Realco looks for expansion in this area in 1968."

Realco has detected no move to trailers longer than 40 feet for piggyback. "While 'doubles' are becoming more popular in highway movement, this has so far not been reflected in the Realco trailer fleet," notes Bayer.

"The standard 40-foot trailer—dry van or lightly insulated van—continues to be the most popular, although the drop-frame 'super cube' does appear to be getting a little better play." The seven-year-old Realco operates the pool of trailers which now involves 74 members including 70 railroads and four ship lines. Bayer expects 1968 growth should equal that of 1967 when Realco ownership grew from 9,000 to more than 12,000 trailers. ■

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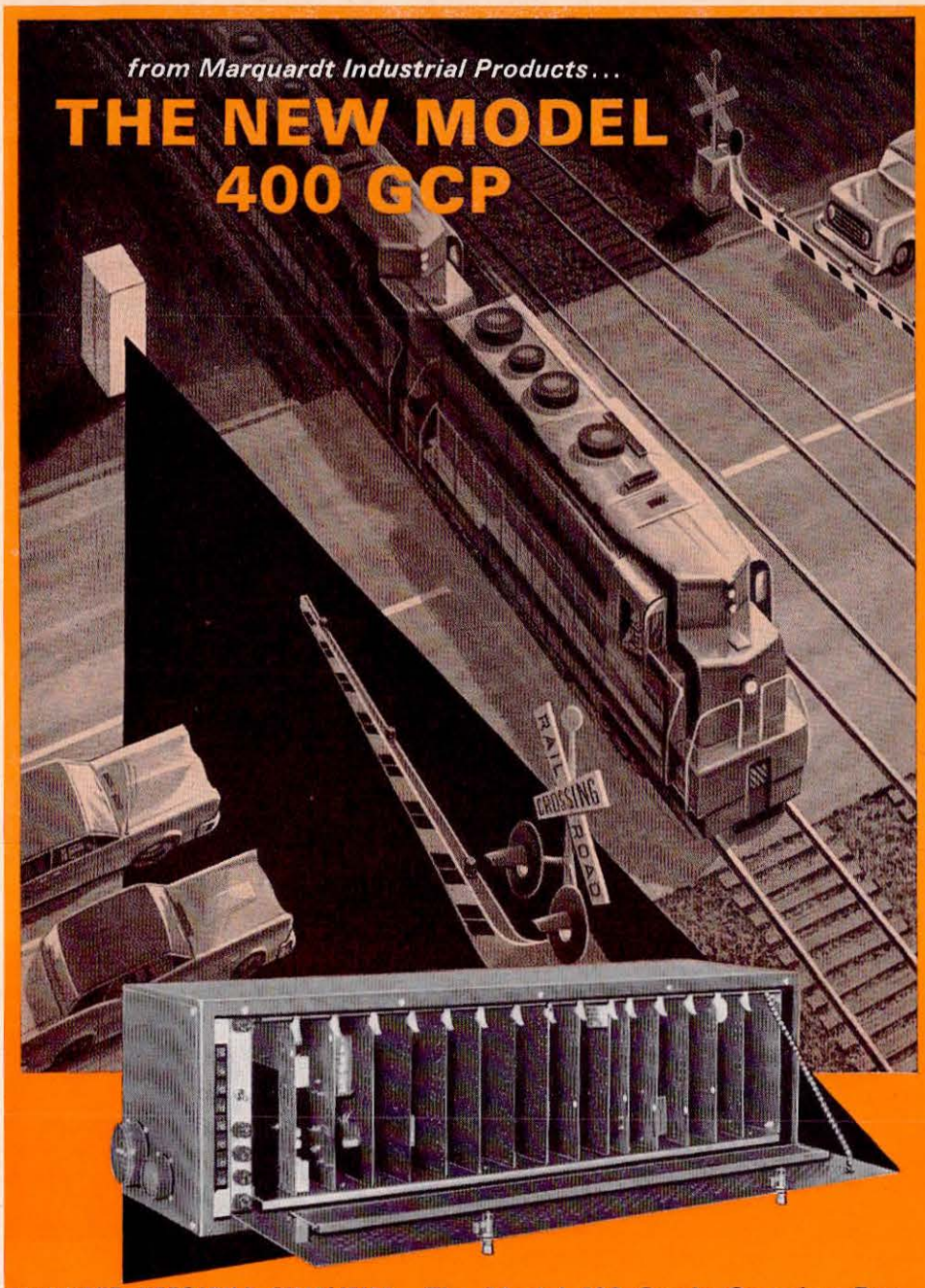


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'68 OUTLOOK

# P&S men head for a greater role in the railroad industry

**Better and less costly railroading will depend very appreciably upon successes achieved in the purchasing field, says Southern's Claytor.**

Talk about materials management on a railroad today and you no longer conjure up visions of grizzled store-keepers tending their shelves in dingy, dusty storehouses. To an increasing extent, mention of materials management today sends the mind leaping to visions of punched cards and spinning tape drives and the antiseptic atmosphere of the computer center.

Powerful forces are at work in the whole buying and materials-management aspect of railroad operation. And what can be seen here and there today may be just a beginning of a long-term swing toward more efficient operation.

The mandate for progress is a clear one—coming both from the leadership of the new AAR Purchases & Materials Management Division and from a sizeable number of railroad chief executives who single out P&MM work as a fertile field for innovation.

● **Just like R&D.** Bangor & Aroostook President W. J. Strout sums up one part of the picture with the observation that "the trend toward specialized equipment has broadened the role of the P&S man. Railroad P&S departments are handling items that differ from the traditional cross-section of railroad inventory. This has brought about the acquiring of new knowledge and, in many cases, the opening of new lines of business communication. With more and more emphasis on specialized equipment—and with continued scrutiny of inventory—the P&S executive now has as creative a management function as the research-and-development man."

Demand for a new kind of creativity brings with it the demand for a particular kind of P&S supervisor—and as '68 comes into being, there also seems to be an increasing emphasis on specific P&S training.

## Many programs are under way

During the year, for example, Union Pacific will put its new operations information system on-line, and a large part of the P&S operation will be handled through the computer. This, says President Edd H. Bailey, "will increase the need for highly trained and qualified personnel—and necessitate operation of an intensified program of upgrading the skills of purchasing and stores employees throughout the year."

Great Northern President John M. Budd agrees. GN implemented a new materials-information system last year, involving a shift to a weekly material-reporting cycle. During 1968-69 the transition will be made to an on-line reporting system—and an educational program will help smooth the way. Special training seminars for stores personnel were held last year and, Budd says, "planning is under way for additional training in several areas during '68. This need for training is continuous."

● **The economy factor.** Quite naturally, when top management looks at the materials-management function, it looks for evidence that every avenue of economy is being explored—on the theory that if prices can't be controlled, buying and distribution methods can be.

UP's Edd Bailey puts it bluntly: "With rising material prices and reduced rail revenues, every dollar must do double duty in the P&S area."

From Northern Pacific President Louis W. Menk comes the comment that P&S supervisors "have an important responsibility in finding ways to minimize the amount of working capital invested in inventory and thereby to release funds for greater efficiencies and improvements in other areas."

## Dollars must turn over faster

From Frisco President Jack E. Gilliland comes a similar thought: "When dollars cost more in the money market, buy less in the commodity market and are in shorter supply, then the challenge is to keep them turning over faster and to drive a harder bargain."

● **'More than order-placers. . .'** Finally, from Southern President W. G. Claytor, Jr., comes an analysis of P&S requirements and ways of meeting them: "Buying practices in 1968 and in future years are certain to become more selective and sophisticated. This will come about as rail managements gain further insight through modern business research and evaluation procedures into their needs for expenditures on improvements, maintenance and equipment purchases. Priorities will be more readily ascertained. Distribution of available funds will be more productive in terms of returns to the spender.

"Purchasing officers will play a major role in carrying out new versions of old responsibilities. They must be more than order-placers. Together with other railroad officers they share the duty of implementing their company's spending policies in a market place where new products and product improvements are being steadily introduced. Because of this, the purchasing function increases in importance, and better and less-costly railroading will depend very appreciably upon successes achieved in this field."

● **The P&MM building job.** Harold M. Hoffmeister, P&MM chairman and vice president-purchases and materials of Missouri Pacific, has a streamlined organization to work with—and a major part of his job and that of the General Committee will lie in building up interest in P&MM Division activities.

For '68, he points out, one major seminar is being planned, a second limited-attendance conference may be held and the annual meeting will be loaded with workshop sessions. The new plan of organization, he notes, "provides for heavy participation by those people nominated by their department heads. Meetings of all six standing committees—on training, material handling, purchasing measurements, inventory control, data systems and liaison with other organizations—will be well-publicized and, of course, they're open to all P&MM men who care to attend. What we're aiming for now is not so much the training of people but rather—as one of our committee chairmen put it—the investigating and determining of where we were, where we are and where we should be going." ■

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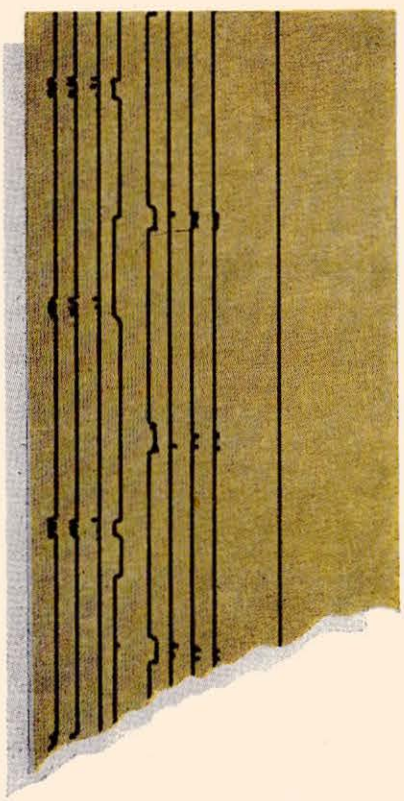

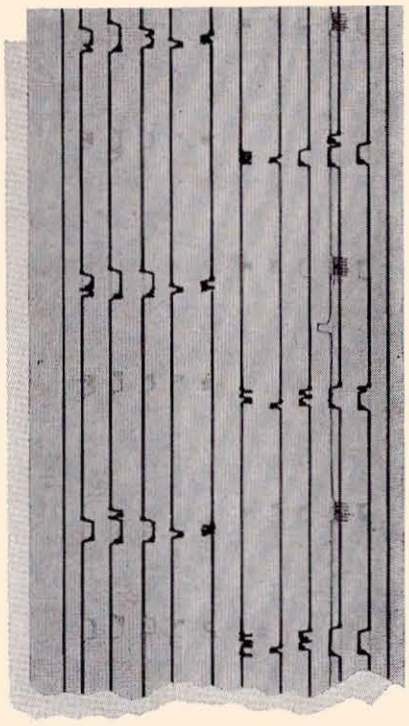

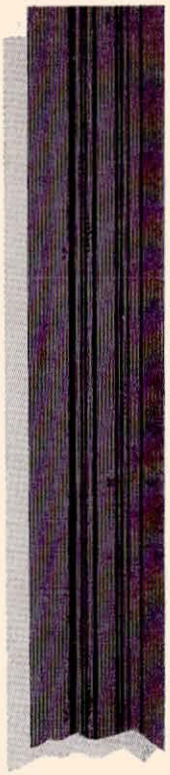

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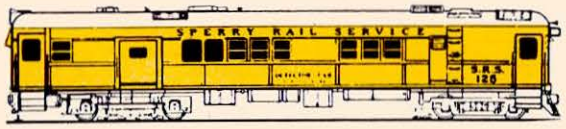


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'68 OUTLOOK

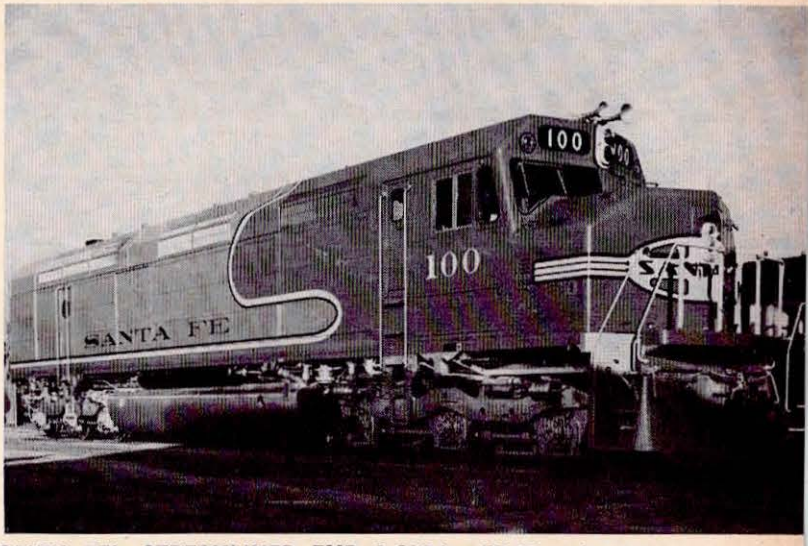
# Diesels: trend is up after off year

Orders picked up after investment tax credit was reinstated. This year should see another increase in the horsepower ratings for single-engine locomotives.

By C. L. COMBES, Mechanical Editor

**ALCO DELIVERED ITS FIRST** 3,600-hp locomotives to the Spokane, Portland and Seattle in 1967.

**SEABOARD COAST LINE** got GE's U33B, highest horsepower 4-axle design. GE also sent streamlined U30CG's to Santa Fe.




**SANTA FE's STREAMLINED EMD** 3,600-hp FP-45 units for Santa Fe are geared for both freight and passenger service.

Locomotive acquisitions dropped sharply in 1967; in 1968 this trend will be reversed. But there will not be a return to the record 1965-1966 buying level when about 1,400 new and rebuilt diesel-electrics were added each year to the nation's motive power fleet.

This year, locomotive installations will be up, yet not much above the approximately 1,100 new and rebuilt locomotives estimated to have gone into service in 1967.

Few new locomotive models were announced in 1967, but this follows a pattern in locomotive development. It takes two or three years to produce new designs, get them into service and improve their reliability through modifications. The builders offered 14 new designs in 1965, so 1968 and 1969 should be the years for another flurry of new models. These designs will again feature increased horsepower with top ratings in the over 4,000-hp range.

In 1967 Alco boosted ratings to 3,600 hp in its Century line when it introduced the 636 model. General Electric increased horsepower to 3,300 in the U33B and U33C locomotives, the former being the highest horsepower four-axle unit available from any domestic builder.

- **Streamlining is back.** The Santa Fe brought back an old locomotive concept in a new way when it received 15 streamlined units in late 1967. Nine were 3,600-hp FP-45s from EMD; six were GE 3,000-hp U30CG units. Essentially, they are modified versions of existing freight models equipped with steam generators to meet their dual freight and passenger service potential.

The significant aspect of their designs, however, is the return to functional streamlining after a decade of general-purpose designs. They offer advantages—easier cleaning, less air resistance, better component protection, and walk-through accessibility—that freight service can utilize as well as passenger service.

With long-haul passenger service being phased out, the outlook is that these designs will have to distinguish themselves in freight service. These units and many more like them will do just that in high-speed operations.

- **Horsepower trend.** Although the number of locomotives acquired in 1967 dropped substantially, it should be kept in mind that at least 75% of these units were in the 3,000-3,600-hp class. This is about double the ratings of locomotives delivered ten years ago. By installing these high-capacity units railroads did a reasonably good job last year in maintaining the fleet's capability to handle the traffic and the trend will continue in 1968.
- **And an exception.** A noteworthy exception to this trend was the Chesapeake & Ohio-Baltimore & Ohio order for 100 second-generation "geeps," Electro-Motive's 2,000-hp GP-38s. This move came as somewhat of a surprise to many railroad men, but the order was based on the C&O/B&O's careful computerized study of its needs. It brings out a fact that escapes many observers of the trend toward more and more horsepower per unit. That is, that the ideal locomotive for secondary freight service and for yard work could very well be the lower horsepower models. The large railroads have given priority to acquisition of the higher horsepower locomotives for mainline freight service and then relegating their older power to less demanding work. This priority could shift to the lower horsepower models when needs and costs justify their purchase.
- **Fleet increases.** Another trend was halted in 1966 when, after several years of a shrinking locomotive fleet, the total increased from 27,433 to 27,516 units. Another

# REMOTE CONTROL HELPS OPERATIONS

increase will probably be shown for 1967, when data becomes available. While the 1966 increase was only 83 units, or 0.3%, the total tractive effort increased about 2.3% from 1,728,421 to 1,767,373 thousand pounds. This is 2.1% more than five years earlier when the fleet had 654 more locomotives, a situation reflecting the greater horsepower per unit.

● **Radio-controlled units.** The Norfolk & Western operated a four-mile-long train of 500 cars and almost 50,000 tons over 159 miles of track last November. Another railroad expects to beat that record. But these experimental trains, while assessing the potential of radio-controlled locomotives, are not true indications of the operating values of those locomotives in normal operations. Most railroads would have difficulty in making up and yarding trains that long. Remote control of locomotives has two basic advantages —better distribution of drawbar pull and better air brake control.

At least eight railroads have radio-controlled locomotives either in service or on order. The Southern pioneered the equipment and is far in the lead in both application and utilization. That railroad, like three others, has the master control in lead locomotives and the "slave" equipment in cars that MU with locomotive consists back in the train. The remaining railroads have both master and slave controls in locomotives.

Radiation, Inc., has supplied its Locotrol system to railroads using radio-controlled locomotives. The company stresses not only the power-distribution capability of its system but also its air brake advantages.

● **"Test tube" electrification.** An industrial railroad now under construction and due for completion in mid-1968 will undoubtedly influence future electrification. The 15-mile Muskingum railroad in southeastern Ohio will use commercial frequency 60-cycle, 25,000-volt alternating current for the first time on this continent. It will be an automated operation and, importantly, its GE 5,000-hp locomotives are considered of optimum capacity for mainline service.

● **Alco sees strong 6-axle demand.** Alco Products, Inc., expects locomotive purchases in 1968 to be up slightly over 1967. Charles C. Davis, president of Alco's Locomotive & Engine Products Division, also sees the total horsepower purchased this year, compared with last year, as being greater than the increase in units because of the buying trend toward locomotives in the 3,000-hp and up range, such as Alco's 3,600-hp Century 636.

"The increase in horsepower per unit," Davis says, "also means that a major share of the market again will consist of six-axle locomotives, which permit a wider utilization range of the added power than do four-axle models. In 1967, for example, more than 70% of all locomotives ordered from Alco were six-axle models, and we anticipate a similar ratio this year."

Along with the trend to higher horsepower in mainline locomotives, Davis foresees the possibility of an increase in purchases of switch locomotives in 1968. He says, "Today's larger yards and larger, heavier freight cars are creating a need for increased switching power. The 1,000-horsepower switch engines that were standard a few years ago are no longer adequate for the needs of many railroads. And the old down-graded road locomotives often used for switching are considerably more expensive to operate than today's new switch engines. Because of these factors, we feel there may be increased demand for switchers in the 1,500-hp class, such as Alco's Century 415.

● **Alco's new trucks.** Two new trucks introduced last year by Alco are designed to keep pace with the trend to higher power and higher speeds. Davis says "The three-axle truck, used for the first time on the Century 636, is a double coil spring model that has reduced maintenance requirements and is designed especially for high-speed operation. The new two-axle truck provides improved wheel-to-rail adhesion under all operating conditions and has other improvements that result in smoother riding qualities and simplified maintenance."

● **GE's 1,000th unit.** In a year-end statement to Railway Age, O. F. Vea, general manager of General Electric's Locomotive and Parts Department, Transportation Systems Division, said, "In 1967 General Electric shipped its 1,000th high horsepower unit. It also introduced the 3,300-hp four- and six-axle unit which in the four-axle configuration is the highest horsepower per axle yet generally available. The first of these four-axle units went into service on the new Seaboard Coast Line Railroad. In the new locomotive design significant advancements have been made in specific fuel efficiency—some 8 to 10% improvement over other designs—a major operational saving for railroads."

● **Locomotive age increases.** "The number of road locomotives which have reached 15 years of age again sharply increased in 1967 from 5,600 to approximately 7,000 units. Since motive power continues to be in short supply for the stepped-up railroad service and continued high level of ton miles, this aging represents higher operating costs. These factors would support a prediction that locomotive purchases would justify shipment in the 1,000- to 1,200-unit level. However, the higher interest rate and some uncertainty in government policy could reduce this prediction."

Commenting on the new 15-mile Muskingum railroad now under construction, Vea said, "The latest in straight electric locomotive systems was purchased by American Electric Power and will go into service by mid-1968. Called the prototype of future railroad electrification, it will use preferred commercial voltage and frequency of 25 kv and 60 cycles. The locomotive uses the most advanced silicon-controlled-rectifier electrical conversion system and the trains it will pull are designed to run automatically."

● **EMD predicts good year.** "1968 should be a good year for Electro-Motive Division" predicts B. B. Brownell, General Motors vice president and general manager of Electro-Motive Division.

"1967 was an eventful year for the Division and the third best sales year in our history," Brownell says. "Sales for the calendar 1967 were off slightly from record-setting 1966 due mainly to the suspension of the 7% investment tax credit on capital equipment purchases in October 1966. Even though the suspension eventually was lifted in June 1967, the eight-month period in which it was in effect put a crimp in the purchasing plans. Few domestic locomotive orders were booked during the suspension period."

● **SD-45 model popular.** "A total of 989 locomotives were built by the over-10,000-man work force at La Grange with 838 of them for American customers," Brownell points out. "Of the total road power, 46% were six-axle, six-motor SD-45 models. A total of 2,375,000 hp was produced in 1967.

● **Third-generation designs.** "It is anticipated the trend will continue toward higher horsepower diesel-electric locomotives," Brownell concluded. "Existing EMD components are designed and are capable of handling substantial increases in power. The 'third generation' of locomotives is already well advanced. Major components for this series of locomotives are visible and under intensive development." ■

# LETTERS FROM READERS

## Car utilization

Oak Lawn, Illinois

To the Editor:

Recent issues of Railway Age have carried statements by various rail officials that they expect automatic car identification to increase car utilization by as much as 10%. I can well understand their desire to increase utilization but if they were really concerned, there is a simple remedy: move empties.

It's a shame the way some railroads handle empties. They are run only on hot merchandise trains when fill is needed; the rest of the time they are run on locals that take from 2 to 4 times as long to cover a given distance. Additionally, they receive delayed handling at terminals.

Several advantages seem to be apparent in handling empties the same as loads. First, and the most obvious, is the increased utilization of expensive equipment. Second, these cars would enable a railroad to run more trains that bypass intermediate yards, resulting in lower terminal costs. Third, and most important, is the improved service the customers would get, and it is only through improved service that railroads will continue to exist as a form of transportation. A fourth, and minor, benefit, would be greater ease in classification. Presently, many roads maintain separate tracks in classification yards for loads and empties. This would be eliminated.

It seems rather hypocritical to me to hear rail executives scream of freight car shortages while they fail to make the best use of that which they have. Our industry has come a long way in the past few years, but my brief period of employment in it has shown me that it still has a long way to go to catch up with the rest of the United States. It must be done if our industry is to survive.

*Thomas Kopriva*

## "To see what's going on"

Richmond, Va.

To the Editor:

In the December 11 issue of Railway Age, you speak of "The new economics of the new railway age" (p. 6). If there were no Railway Age, where would we get the news in detail as furnished by your publication? Frankly I don't know how I could get along without it. I am retired but just as interested in the railroads as when working as superintendent or special representative of the vice president. . . .

*Charles I. Morton*

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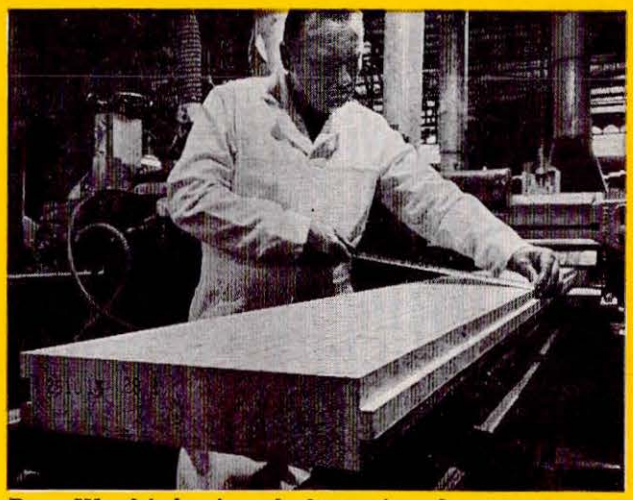
# DEPEND ON BRUCE



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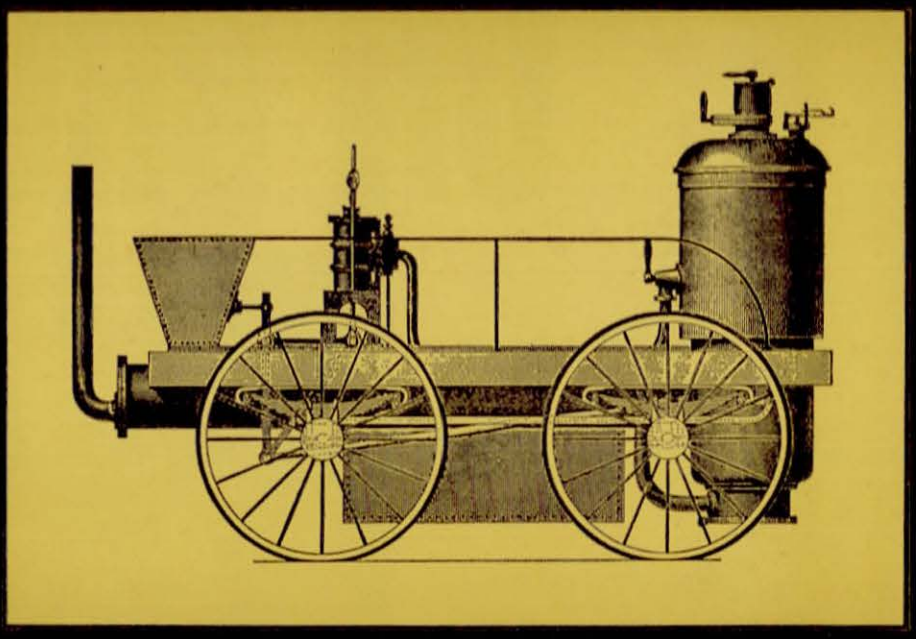

# but it's all we had

Just a dinky little engine that could pull a couple of carriages on wheels to the next town. The promise of a faster and lower cost way to travel. And for all those people bottled up along the east coast, it was a way out. They leaped at the chance. Despite the fact a common expression of the day was "As worthless as a railroad stock", despite the preachers who said railroads would lower public and private morals, despite the cinder holes in his clothes and the inconvenience of lifting cars back on the track, the man in the street really took a fancy to the railroad.

The visionaries took one look at the tiny Best Friend of Charleston, the Tom Thumb, West Point and DeWitt Clinton and told us railroads would get bigger. They did. Big enough to empty the busy streets of Nantucket, Salem and Charleston. To bypass important cities like Oswego, Sandusky, Fort Wayne and build a giant at the foot of Lake Michigan. Big enough to steal New Orlean's monopoly of the Mississippi Valley. The visionaries foresaw the movement of people and goods, but they couldn't guess the railroads would be the deciding factor in three wars for freedom. Or railroads could supply the winter-weary North with a summer crop of fruits and vegetables daily. That railroads would carry much of the material to fly man around the world, to shoot a rocket to the moon.

Times changed, and the railroads went along. When the country needed physical growth, railroads' main cargo was people. Now people and industry are spread across the land and the railroads' main cargo is products. People have a better way to go. Products don't. Railroads, for a long time to come, will provide the fastest and safest way to get goods in volume from one place to another. And BFF is proud to be a source of the forgings and fabrications which make carrying the goods more economical as well.

Maybe it's all because somebody couldn't get where he wanted to go fast enough on a carriage or canal boat. On a little engine, he could.

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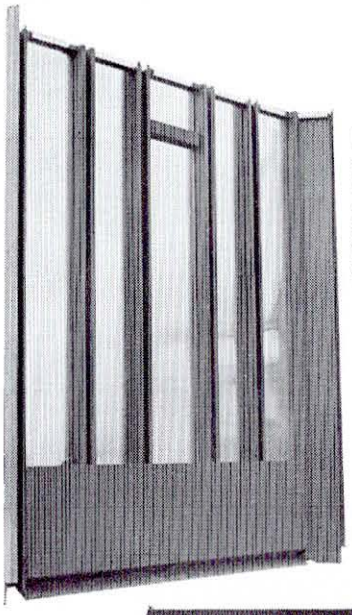
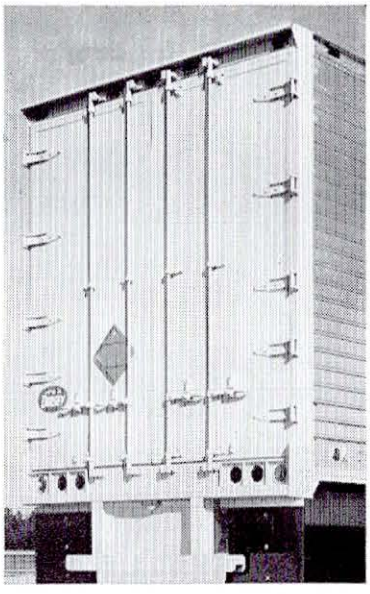
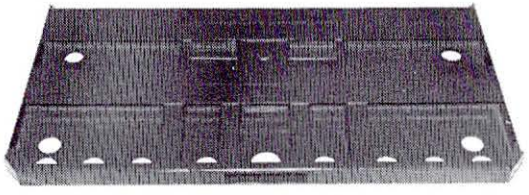


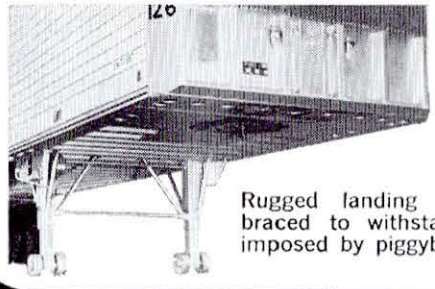
Full length nose posts give extra strength. The entire front frame, including diagonal corners, is jig-welded before installation. The steel bulkhead in the lower portion provides lateral support and wards off fork lift bumps.



Rear frame is a jig-welded hi-tensile steel structure. Doors are full-opening and lights are completely protected by rear skirt.

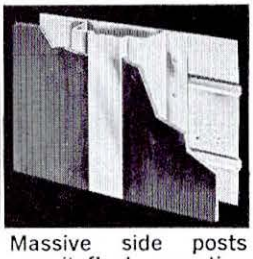


Pedestal type forged steel king pin extends all the way through the hi-tensile steel upper fifth wheel assembly and is welded top and bottom. Four structural steel "T" members extend full width to reinforce the load carrying area.

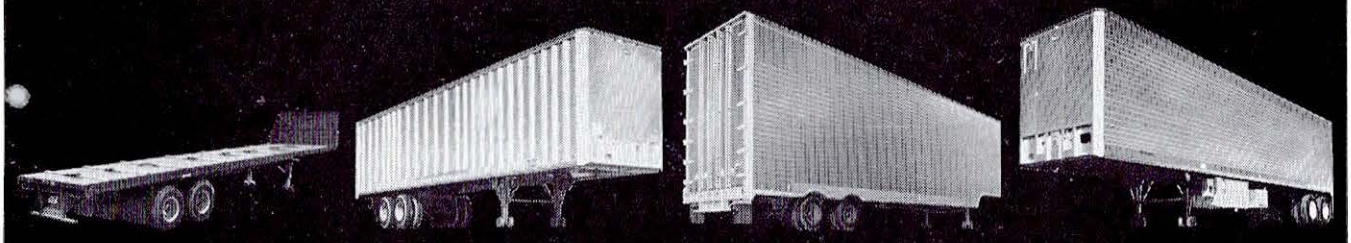


Rugged landing rear is fully-braced to withstand the strain imposed by piggyback service.

Leakproof roof is riveted outside the trailer body to extruded aluminum cove rail containing wiring.



Massive side posts permit flush mounting the lining on interior post models.



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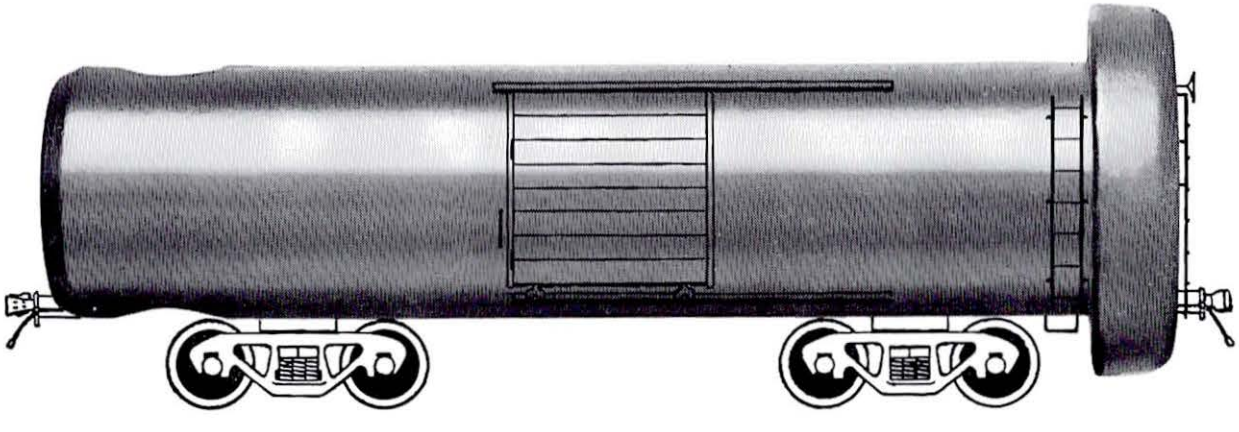

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'68 OUTLOOK

# Railroads hopeful that some proposals will clear Congress

## Most of the top priority items on the industry's legislative program are expected to be deferred again, however.

By WALTER J. TAFT, Washington Editor

This is an election year, which means that actions of President Johnson's Administration and proceedings of Congress will reflect the usual election-year preoccupation with politics. At stake in the election next November will be the Presidency, all seats in the House of Representatives, and one-third of the Senate seats, including that of the Commerce Committee's chairman, Senator Warren G. Magnuson (D.-Wash.). In that setting, there won't be much room for advancement of the railroad industry's legislative program.

Railroads are hopeful, nevertheless, that some of their proposals will clear Congress, even though most of the program's top priority (and more controversial) items are apt to be deferred again. Meanwhile, the industry is confident that this will be another successful holding year, i.e., a year in which Congress is persuaded not to act on legislative proposals considered adverse to the railroads. It's easier to defeat proposed legislation than get it enacted.

• **Sure thing.** The cautious approach can be abandoned for a moment, however, to predict confidently that Congress will pass legislation to liberalize benefits of the Railroad Retirement and Unemployment Insurance systems, as agreed upon by railroad management and unions representing railroad employees. Labor-management agreements are always sure-fire expediters of legislation.

The present pact was entered last year as Congress was passing legislation to increase taxes and liberalize benefits of the general Social Security System. Because of the Railroad Retirement Act's tie-in with the Social Security Act, that legislation raised the maximum taxable income of railroaders and thus increased payroll taxes paid by railroads and their employees to support the Retirement System. With few exceptions, however, principally spouse annuities, the retirement benefits of railroaders are not affected by the tie-in arrangement. So, the agreed-on bill will keep retirement benefits of railroaders 110% of what they would have got under the Social Security System. As to unemployment insurance benefits, the agreed-on bill will increase them by about $20 million a year. Payroll taxes which support these benefits are paid entirely by railroads.

• **Other favorable prospects.** Other prospects for favorable Congressional action this year are best in the tax-relief area, the railroads think. As one of their Washington representatives puts it, they are very optimistic that Congress will heed their call for relief from discriminatory state and local taxation. The proposal here is to give federal courts jurisdiction to condemn discriminatory state and local taxes as undue burdens on interstate commerce. A bill to implement that proposal is favored by a majority of the House Committee on Interstate and Foreign Commerce. So, it's reasonable to assume that the Committee is ready to follow through with a recommendation for favorable House action. That could set the stage for action by the Senate which seems to have been waiting for the House to move.

Railroads have also turned up what they consider bases for hope that Congress will respond to their call for authority to amortize reorganization expenses. This proposal would not confine the write-offs to costs of reorganizing bankrupt roads. It would also permit amortization of costs of merger studies and expenses involved in consummating mergers. These costs are now capitalized.

• **Depreciation guidelines.** Another tax proposal of the railroads relates to depreciation and amortization guidelines. They want the Treasury's guidelines modified and then incorporated into the Internal Revenue Code. As to the latter, the idea is that there should be some assurance that present guidelines will be continued. As now set up administratively, they might be revoked or modified by the Johnson Administration or a succeeding Administration. Here, however, the railroad bid for legislation is being held in abeyance while the AAR works with the Treasury on the industry's request for modification of the guidelines to permit amortization of such property as grading and tunnel bores.

Much progress has been made in these negotiations with the Treasury, as noted in the AAR's annual report. One of the issues has been whether the retirement-and-replacement plan of accounting for track items gave the railroads advantages which more than offset any of the disadvantages of not being able to amortize grading and tunnel bores. This threshold question has now been resolved in favor of the railroads by a report from the accounting firm of Haskins & Sells. H&S was retained jointly by the AAR and the Treasury.

### The merits of the case

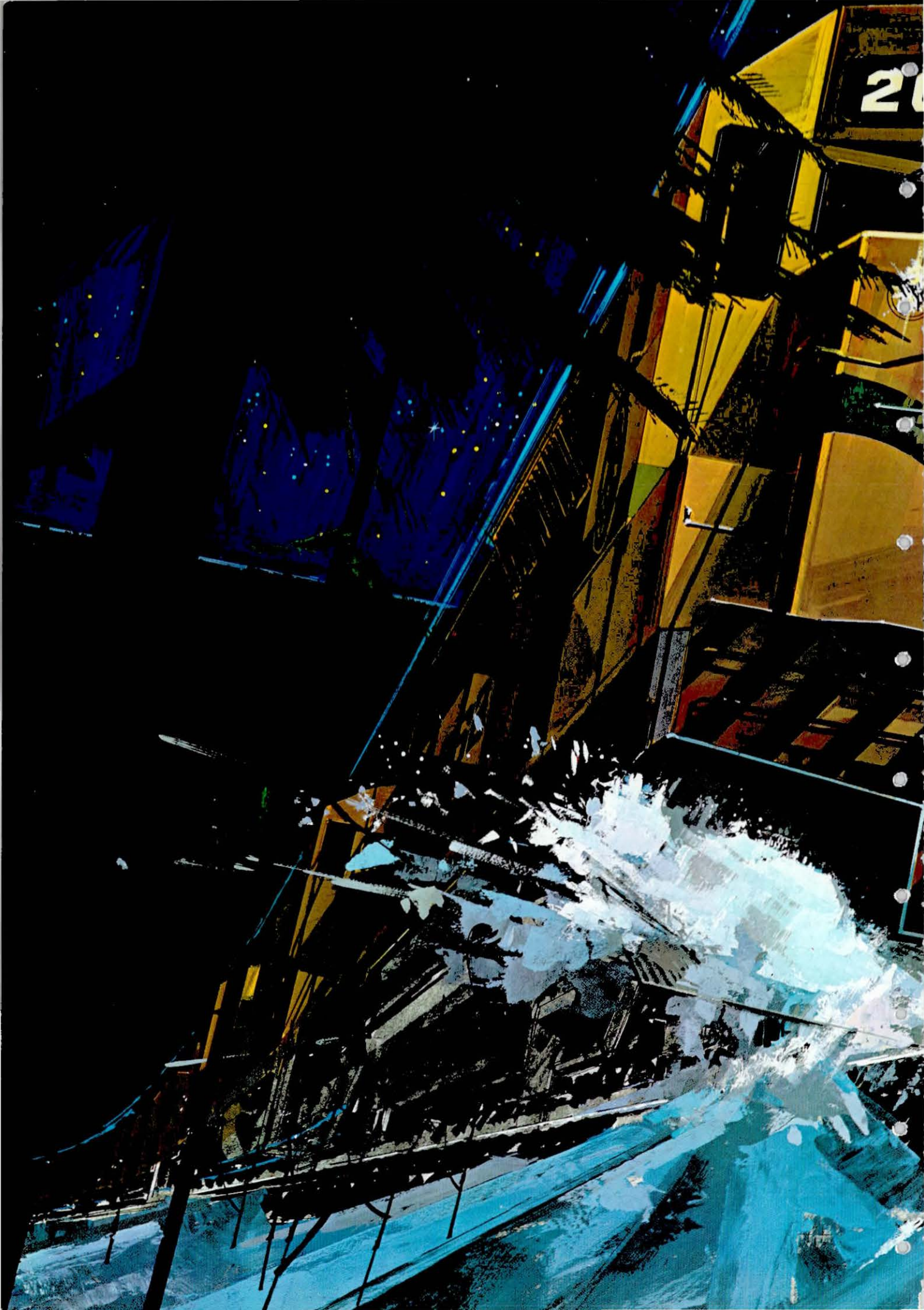
Its report concludes that the retirement-and-replacement method has yielded a reasonable cumulative allowance for the exhaustion, wear and tear of the involved track items, and that this cumulative allowance has not exceeded that which would have been allowable under ratable depreciation methods. This sets the stage for Treasury's consideration of the grading-and-tunnel-bore case on its merits.

• **Easer of car shortage.** Because of car shortages in recent years, there is a possibility that Congress will find time to ease grain-inspection requirements which involve special car movements and extended free-time allowances. Authorization of mechanical inspection of grain is one phase of this program.

Of these matters in relatively favorable positions, however, only the tax proposals are on the railroads' list of principal legislative objectives. A new item on that list is the call for legislation to recognize public responsibility for the costs of grade-crossing protection.

• **Possible eye catcher.** This could catch the eye of Congress because it would implement a recommendation of the ICC's 1964 report on its investigation of ways and means of preventing accidents at crossings. Though instituted by the Commission's own motion, that investigation

*(Continued on page 62)*



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# USER CHARGES STILL A TOUGH ONE

*(Continued from page 57)*
(docketed as No. 33440) came in the aftermath of petitions filed with the Commission by unions representing railroad employees. So, the unions might be expected to support implementing legislation.

Moreover, the public responsibility in this area has also been recognized by Secretary of Transportation Alan S. Boyd. He has called the problem "a railroad, highway and public problem which requires an intensive attack on all factors which contribute to crossing accidents." Present law permits states to use up to 10% of their federal-aid highway funds for crossing work, but the AAR seeks more liberal federal allowances for the work. The Association's president, Thomas M. Goodfellow, has pointed out that railroads are often unable to spend for new crossing work. They are already spending about $100 million a year to maintain existing crossings and protective devices.

● **User charges.** Another priority on the railroad list is the call for adequate user charges on publicly-provided transport facilities. This has always been a tough one, as an informed railroader puts it. He thinks, nevertheless, that some progress might be made if the Administration made it a must item and gave it support of the LBJ-all-the-way variety. Congress already has the Administration bills which would institute a modest waterway user charge and increase charges now applicable to highway and air carriers.

## Truck size and weight limits

As to the highway charges, the railroads are concerned lest these levies be left where they are while the trucking industry succeeds in its current drive for more liberal vehicle size and weight limits. It is the railroad position that charges on trucks under present limits would remain inadequate even if they were increased as recommended by the Administration. And that situation would be worsened by any clearance for bigger trucks and tractor-trailer combos.

● **Settlement of labor disputes.** Though it's still on their principal-objectives list, railroads are not expected to press for action this year on their proposal to make recommendations of Presidential emergency boards final in wage and working-rules cases. This proposal got nowhere last year, despite the strike-threat crisis posed by the shopcraft unions.

That crisis was resolved with an imposed settlement of the dispute under the one-shot law which Congress passed upon President Johnson's recommendation. Railroads still want to avoid such crises by having permanent settlement provisions in the Railway Labor Act.

● **Rate freedom.** Also dormant for the present are the two remaining items on the AAR priority list. These are the calls for freedom to make competitive rates and liberalized arrangements for diversification or common ownership, which means more freedom to operate other forms of transport. The rate-freedom drive has been sidetracked to await the outcome of the Ingot Molds case. That involves an anti-rate-freedom decision of the ICC which is now before the U.S. Supreme Court.

So far, railroads are doing O.K. in this case, winning in the lower court and having the support of the Department of Justice. Justice's position is in line with the general rate-freedom support which has come to the railroads from the Department of Transportation and President Johnson's Council of Economic Advisers.

An issue related to rate freedom is the mixing-rule controversy which will be to the fore again this year. This controversy centers on the undertaking of barge operators to win in Congress a rate-deregulation case which they lost at the ICC and in the courts. Involved is the Commission's interpretation of the Interstate Commerce Act's so-called bulk-commodity exemption. The interpretation holds that bargeloads of bulk commodities lose this exemption from regulation when they are added to a tow under circumstances which result in mixing them with non-bulk shipments or increasing the number of bulk commodities in a tow to more than three. When the barge lines' relief bill came up, the AAR seized the opportunity it afforded to contend that any favorable action on it should be tied to extension of the bulk-commodity exemption to railroads. The barge-line bill is still alive, as is a bill embodying the railroad extension proposal which was introduced just before the 1967 session ended.

● **Diversification.** Lack of prospects for favorable Congressional action has kept the diversification proposal dormant. It's a controversial issue, railroad freedom to operate all forms of transport being bitterly opposed by railroad competitors to whom the proposed freedom would also apply. Recently, however, railroads have entertained hope that it may become realistic to reactivate the proposal. This is based largely on the attitude of Secretary of Transportation Boyd who has said that he does not regard consideration of common ownership as something proscribed.

The railroads still think it is the soundest approach to transport coordination. The difficult job ahead was pointed up by a railroad Washington representative who said his principals had convinced him that the diversification proposal is sound—but "they don't tell me how to sell it." The seller, of course, runs up against the superficially-appealing argument to the effect that all benefits of common ownership can be realized by joint-rate and through-route arrangements between carriers of different modes. One railroad spokesman has rejected this as wishful thinking, because "Unless the several modes are under common control and management, there will certainly be no voluntary effort to provide coordinated services in the shippers' interest."

## Rail-motor rates and routes

While the ICC has been neutral about common ownership, which it considers a matter of Congressional policy, it is seeking new power to prescribe joint rail-motor rates and routes. Railroads oppose this as they oppose another important Commission proposal calling for more power to deal with service-abandonment (so-called train-off) proposals.

● **New AAR look at ICC chairmanship.** The railroads last month reversed their previous position on the ICC chairmanship. They now favor appointment of the Commission's chairman by the President—for a term not exceeding the seven years of a commissioner's term. This action was taken at the December meeting of the AAR's board of directors. The industry formerly opposed Presidentially-appointed chairmen, favoring the present Commission plan of rotating the assignment.

It was explained at AAR that the reversal was based on the directors' present thinking that prospective advantages of the Presidential-appointment plan have come to outweigh its prospective disadvantages. The Johnson Administration is understood to favor the plan, but it is not expected to make an all-out drive for the required amendment to the Interstate Commerce Act. Such an amendment would bring the Act into line with other regulatory laws which provide for Presidentially-appointed chairmen of the Civil Aeronautics Board and Federal Maritime Commission. There is still opposition, including that of the National Industrial Traffic League. ■

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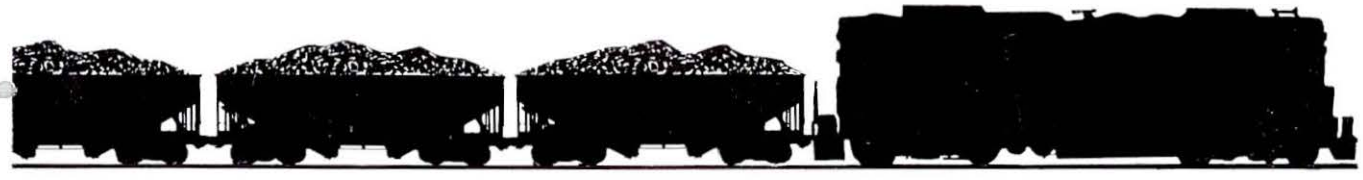

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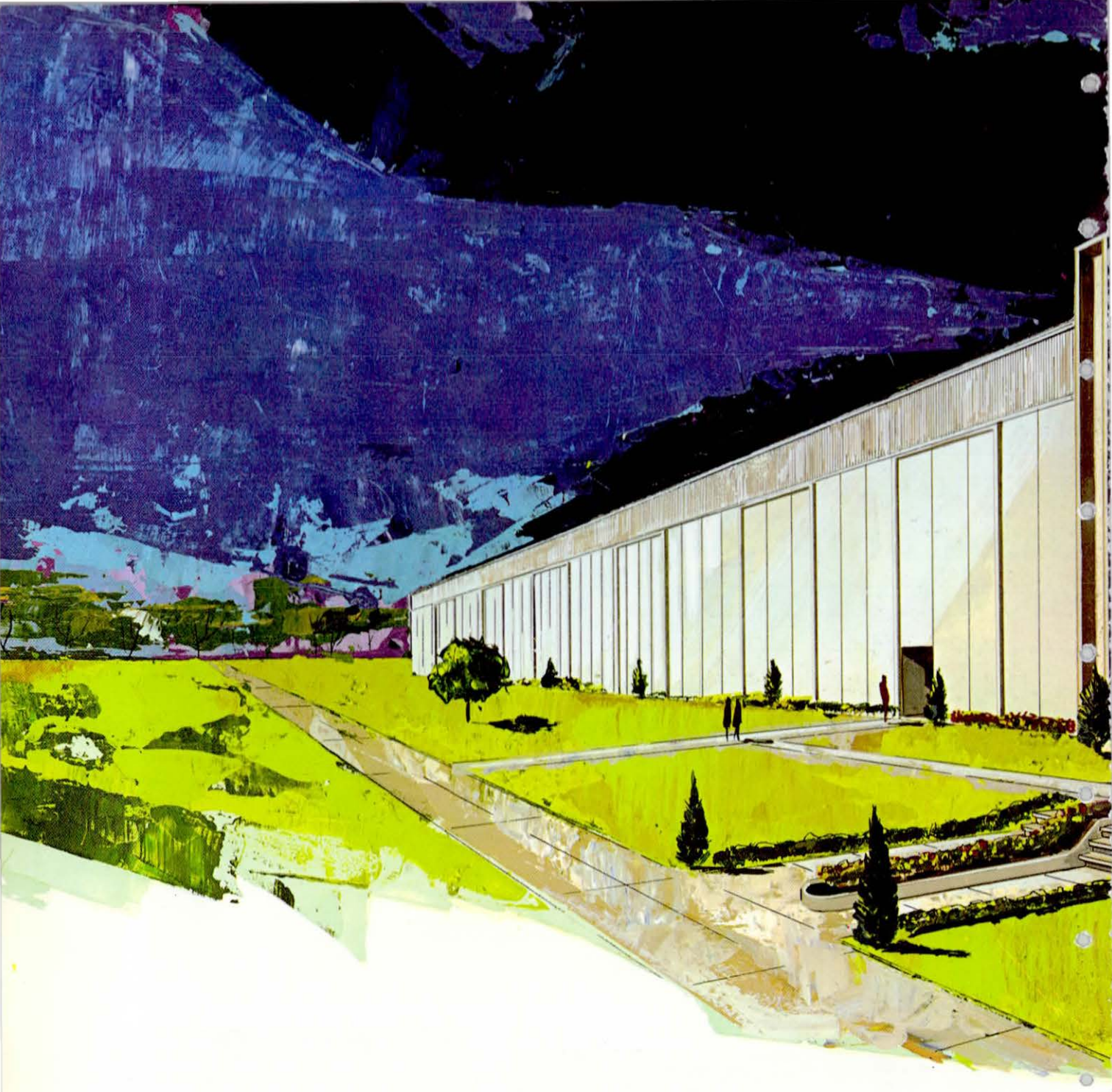

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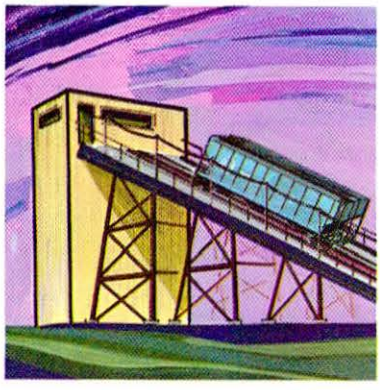

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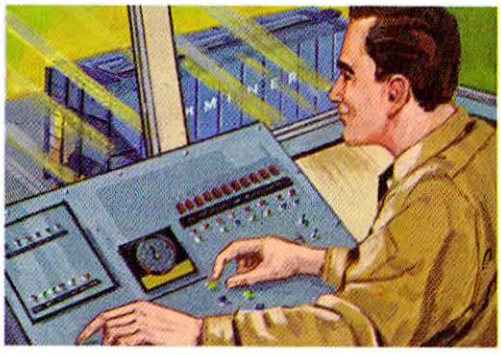

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Office of International Operations: Washington, D.C.

'68 OUTLOOK

# Prospects look good for a year of labor peace

**The path to peace may not be a smooth one. But a respite from open management-labor confrontations would give both sides a chance to work on solutions to long-range railroad problems.**

By GUS WELTY, Senior Editor

You'd never know it from the newspaper headlines—but 1967 may someday be recognized as a year of genuine, positive accomplishment in rail management-labor relations.

A quick look at '67 can be misleading. To the quick looker, '67 was the year of the shopcraft strike, the year when labor gambled once again that it could shout defiance and get away without suffering permanent harm, the year when wage-rate increases shattered all "guidelines."

A longer, more thoughtful look at the year, however, produces a different impression. And '67 begins to shape up as a time of rather realistic readjustments on several fronts. As a result, '68 could bring a new kind of atmosphere in management-union dealings—if the positive steps undertaken last year are followed up this year.

• **Why think positively?** What gives rise to all this optimism? A variety of factors, some of them based on fact and others on supposition, expectation—and hope:

—For the first time in years, responsible union leaders are doing more than talking about union consolidation. And the leadership for the budding merger movement is broad-based. Chief executives of the two biggest rail unions—C. L. Dennis of the Brotherhood of Railway and Airline Clerks and Charles Luna of the Brotherhood of Railroad Trainmen—can lead from strength in trying to promote a more rational organization of rail labor's forces. But from other union leaders—such men as H. E. Gilbert of the Brotherhood of Locomotive Firemen & Enginemen, Clyde F. Lane of the Order of Railway Conductors & Brakemen, Neil P. Speirs of the Switchmen's Union of North America and George E. Leighty of the Transportation-Communication Employees Union, to name a few—can come a sympathetic reaction. Gilbert, in particular, has been a long-time advocate of union merger—and most observers would probably agree that it's been through no fault of his, personally, that merger hasn't become a movement before this.

—For the first time in quite a while, leaders on both sides seemed to be demonstrating a real desire to get along, to be about the business at hand with a minimum of needless wrangling and public posturing. Agreement on a program to improve benefits under the retirement and unemployment/sickness insurance systems was predictable. But less automatic were other cooperative approaches in the health-and-welfare area. And the post-Christmas agreement with the Clerks organization was a beautiful piece of evidence in support of the argument that rail management-union relations don't have to accentuate the negative, don't have to create crises.

—On both sides, there's an indication that longer-range planning will be stressed. This can only lead to betterment of the situation—especially if union leaders can translate to a restless membership the fact that employee prosperity and security depend upon industry prosperity and security.

• **Get the house in order.** All in all, 1968 looks like a year in which both rail management and rail labor will be concentrating on solving their own particular problems—and trying to avoid the kind of open confrontations that have marked managment-union relations so often in recent years.

The path to peace, however, may not be a smooth one. Not long ago, a responsible rail union officer took a long look at the goals and operating methods of both labor and management. And he came up with these comments:

"Unions don't have or need any goal other than 'more.' Oh, occasionally someone eloquent like Walter Reuther comes along and talks about social objectives and civil rights and so forth. But I can't see his counterpart anywhere in the rest of labor, let alone on the railroads.

"So the goal will be more for fewer—everybody being resigned to continued dwindling of employment. This should mean additional pressures for fewer organizations. But I can't really see it coming, in the next 20 or 25 years. By all logic, a couple of the unions should have died off and another one should be on its deathbed. But these organizations have some hardworking officers who refuse to be counted out—and when one of them leaves the scene, there's always somebody to take his place.

## Which way collective bargaining?

"As for the management side, the new man at the National Railway Labor Conference [NRLC Chairman J. P. Hiltz, Jr., successor to J. E. Wolfe] seems to be an unknown quantity, still. So, I couldn't guess which way collective bargaining in the industry is headed. . . . There could well be some fragmenting of wage and rules movements—maybe with the unions settling for something good on the prosperous roads and something less on the troubled lines. I don't really know—but everybody seems agreed that bargaining has hit a low in the industry. There's no place to go but up.

"Craft unions you know, are very institutionalized and slow to change. It's only when a really dynamic leader comes along that change becomes noticeable. Another Eugene Debs—armed with lots of money and Madison Avenue techniques—might make a success of it this time. But I really doubt if there will be another Debs.

"Government? Well, it could be that the Department of Transportation will bring some changes. But most likely the Department will wheeze along in bureaucratic fashion, adopting the procedures and stultifying policies of the bureaus and personnel it absorbed when it came into being."

● **Upside views predominate.** This has to be regarded as one of the more pessimistic observations on the labor scene. Most other observers on the union side think things can be better—and, while they tend to emphasize what they regard as management's shortcomings, they don't ignore labor's responsibility.

The president of one operating organization puts it in this language:

"The prospect for change in either the atmosphere or the traditional methods of bargaining rests with the ability of the parties to regain confidence in each other. . . . While relations between the parties do seem to be improving slightly under the new NRLC leadership, the practice of ignoring responsibility and passing it to a third party for final and binding arbitration still exists. Until the parties fully accept their responsibility of sitting down together at the bargaining table, with confidence in each other to honestly carry out the terms of the agreements reached, there appears little likelihood of any improvement in the atmosphere of collective bargaining."

● **Three targets.** From the top officer of another of the ops comes a somewhat similar set of observations on union thinking today. Union goals, this chief executive declares, will lie in three general areas: "First, is improved relations —and we are eager to see this happen, because railroad men are angry and therefore not receptive to management's problems. They feel they have been maligned. They feel they have been frustrated by management representatives in attempts to bargain. Relations must be improved before there can be meaningful and successful collective bargaining. Second, there must be an improvement in the public image of the railroad worker. Here's an opportunity for management to break the ice. But if there is no help coming from that direction, we will tackle the job ourselves. Finally, there's the basic goal which is consistent with those of all of labor—and that's the improvement of rates of pay and working conditions. Railroad men must maintain their position in the forefront of industry in this area."

Can bargaining conditions be improved? This union chief thinks so: "Both sides certainly have their partisan interests, but there is really no good reason why they cannot discuss their problems in an atmosphere where both sides can be depended upon to face their obligations and where there is a mutual respect and trust that any understanding reached will be fulfilled as agreed upon.

"Good relations exist today on some railroads, but when the subjects come before the parties at a national level, it seems impossible to reach such a climate. When we are able to sit down with top management in an atmosphere where there is understanding and trust, with a spirit of cooperation and active participation in the problems of each side on the part of both sides, then we will begin to achieve proper collective bargaining.

"Why shouldn't there be this kind of cooperation and honest disagreement over issues, without rancor? After all, it is a group of employees, whether they be white-collar or production workers, who will actually carry out the functions of industry.

"And all of them have an interest in industry's success or failure."

● **Helping out elsewhere.** How about other areas of possible cooperation—for instance, in legislative work? One union president agrees that there are "important areas where cooperation is possible. But it will take greatly improved relations to accomplish this. We are distrustful of the legislative goals of the railroads, which we often find to be strongly tainted with anti-labor elements."

Or, how about the big, broad area of technological change? Top men in two major unions—one op, one non-op —talked about the problems, recently, and this is what they came up with: Under present circumstances, the chief executive from the ops' side said, "We're inclined to view the aims of management with suspicion. We've seen management go far beyond what is required and press for inflated goals through misrepresentations. We resent these tactics, and we will automatically resist them. But we're not blind to progress. We're just sensitive to pressures and human enough to react. Therefore, we're facing these problems as they arise because we have had no opportunity for participation in the planning."

The president of one of the biggest of the non-ops puts the problem in even more specific terms: "It's not the policy of our organization to oppose technological change, as such. . .

"But we do not feel that the fruits of change should be enjoyed by the employer at the expense of the employee—and we would certainly insist on a full measure of protection to our people adversely affected."

● **Relations warming up?** What all this seems to indicate is that (1) there's not going to be any great love-feast catered for management and labor, but (2) there's still reason to believe that the two sides can come closer together than they've been.

## Long-term planning is a must

The essentials of better relationships? Trust and confidence—and, always, a concentration on long-term planning.

This emphasis on planning—and on the communication of planning's results—is just a bit unusual. But both sides are realizing today, if they didn't before, that nobody can make much sense out of 1975 or 1980 or 2000 without taking into consideration the element of a company's (or an industry's) relationships with the people who work for and with it. Certainly, the rail merger movement has proved this—and you can't really go much farther than the Great Northern Pacific & Burlington roads have gone, in guaranteeing what amounts to lifetime jobs to employees regardless of whether there are actual job-security agreements with their unions.

This situation, not surprisingly, is one that's deeply concerning leaders on both sides of the room. With everything that has been provided, in merger cases and as a matter of industry-wide bargaining, what kind of security is left to be demanded and/or provided? And, even more to the point, how much more of this sort of thing can the railroad industry survive?

● **For the long pull . . .** It could well be that the long-term contracts which now seem to be in the making will be valuable in the hands of both management and labor negotiators. The industry, most observers would probably agree, needs a respite from crisis. It needs it, in a commercial sense, to restore a measure of confidence among users of rail service—who, in the normal bargain-and-threaten course of things, often see their operations wracked with uncertainty over long periods of time. Respite is also needed, however, in an even broader sense—to give management's planners and the organizations' planners a chance to work on solutions to the real long-range problems of the industry. ■

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'68 OUTLOOK

# Railroads will beef up S&C outlays

**Substantially bigger budgets are planned for both signaling and communications. Rising labor costs account for some of the increase, but there will also be bigger net spending for hardware.**

By R. W. McKNIGHT, Signaling & Communications Editor

Signal and communications officers are planning for a banner year in new equipment installations. S&C officers on U.S. and Canadian Class I railroads are budgeting $122.7 million for 1968. Transit authority S&C officers in the U.S. and Canada are budgeting another $29 million for plant improvements. These projected figures compare with last year's budget figures of $85 million for railroads and $15 million for transit authorities.

Part of the increase is due to increased labor costs. The money to be spent for hardware and equipment, however, will be substantially above 1967. Total S&C outlays for equipment in 1968 will be $84 million. This will be apportioned as follows: $71.1 million for U.S. and Canadian Class I railroads; $12.9 million for transit authorities in both countries.

● **Signal money up.** Railroads are planning to spend $30.3 million for equipment, including such things as highway crossing protection units, CTC machines, retarders, switches and signals. Transit authorities are earmarking another $8.1 million for similar equipment.

Heavy emphasis will be on upgrading safety at highway-railroad grade crossings. Preliminary reports indicate that at least 198 such crossings will be equipped with flashing-light signals and/or gates in 1968. Although this is a low figure, based upon previous years' planning reports, this 198 will rise to about 1,200 crossings so equipped by the end of 1968.

Preliminary figures reveal that railroads will install six automatic classification yards during 1968. Four will be of the type controlled by digital computers. The other two are to be small flat yards upgraded to semi-automatic retarder operation.

Railroads are planning to install 618 road miles of centralized traffic control in 1968. This also shows that total mileage of CTC will probably be in the neighborhood of 1,200 road miles by year-end.

Safety detectors will receive heavy emphasis during the year, mainly because of increased freight-train speeds. Indications are that roads will be installing increasing numbers of hotbox detectors (116 reported so far), dragging equipment detectors, high and wide load detectors, rock slide fences, and loose-wheel detectors.

● **Transit signaling steady.** Outlays for signal equipment by transit authorities continue at the steady level of the past few years. Reports indicate that transit signal officers are planning to spend $8.1 million for signal hardware and equipment in 1968. At least 41 road miles of cab signaling wayside equipment is scheduled for installation this year. Also, several hundred transit cars will be equipped with cab signal hardware. Boston, Chicago and Cleveland are among major cities where cab signals are being or will be installed during 1968.

Some money will be spent by San Francisco's Bay Area Rapid Transit District for signal equipment during the year. The contract for BART's automatic train control and communications system was awarded to Westinghouse Electric Corp. for $26.2 million. Welco is now developing and manufacturing equipment which should be installed in time for a late 1969 in-service date.

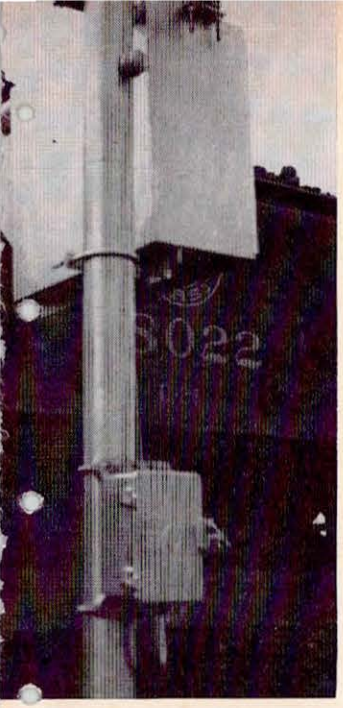
In another area of automation, namely automatic train operation, American Electric Power Co. is constructing a 15-mile electric railroad for hauling coal from a strip mine to a power plant. Fully automatic operation will include loading, hauling and unloading of 15-car trains using 100-ton cars. General Electric Co. will supply the locomotives as well as the complete automation control equipment.

The reason for going to automatic train operation, say AEP officers, is simply one of economy and efficiency. During loading and unloading operations, automatic control of the train and coal handling facilities is much more efficient than using manual methods.

● **Communications up, too.** Railroad communications officers are preparing their respective roads for the implementation of automatic car identification and the AAR's TeleRail Automated Information Network (TRAIN). The TRAIN project, announced early last year, will be operational in 1969. Initially, railroads will feed interchange information to an AAR computer center in Washington. But as the system progresses, there will be full two-way transmission of information between member roads and the AAR.

Sylvania Electric Products Inc., is the manufacturer of the industry standard ACI system. And finally, the car-owning railroads voted to approve a mechanical Division letter ballot making it mandatory for all freight cars, trailers and containers used in interchange to be equipped with KarTrak color-coded ACI labels by Jan. 1, 1970.

ACI and TRAIN will mean, for many railroads, a tremendous increase in communications facilities. For 1968, railroad communications officers are planning to spend



**INSTALLATION OF ACI** equipment will fatten budgets in next two years. Pictured is Sylvania's KarTrak scanner. Sylvania system won AAR approval in 1967.

$40.8 million for equipment, an increase of some $15 over 1967. Preliminary figures show that about 3,400 route miles of microwave systems will be started or be under construction during the year. Several railroads are entering the microwave field, having reached the point of saturation of many of their wire line facilities.

Several railroads have indicated that they will install ACI scanners during 1968.

● **Share communications links.** With the increased demand for communications, some railroads have shared microwave and leased voice channels. For example, sharing of Telpak services (AT&T's bulk communications package) is quite common, particularly for providing circuits to off-line traffic offices. Federal Communications Commission rules will also allow railroads to share microwave facilities. A few railroads are now leasing voice channels from other roads having microwave systems. This practice will probably increase during the next few years. Railroads often find the practice of leasing circuits an advantage when an immediate need arises. Lease arrangements may have relatively short cancellation agreements, such as 60 or 90 days, enabling a railroad to re-align its circuits as occasion warrants. Some roads may find it an advantage to lease circuits to ACI scanners upon installation of such scanners and continue leasing until such time as they can engineer and install their own facilities. Where scanners are located at interchange points, it might be feasible and economical for one of the roads to lease circuits from the ACI scanners from other roads at the interchange location.

● **More radio.** Roads have already indicated they will purchase about 1,000 radio sets during 1968. Purchases should reach the 3,500-4,000 mark by year end. Probably 1,000 transistorized sets will be purchased to replace older vacuum-tube units. Many railroads reported that during 1968 they will completely equip their maintenance-of-way work equipment with two-way radio units.

Well over 500 buses are to be equipped with two-way radio during 1968. Also, several transit authorities are equipping their rapid transit trains with radio to provide direct communication between dispatchers, police and train crews.

Radio for transit operations and other communications equipment used in transit will provide a $4.8-million market in 1968 for equipment manufacturers. Several transit authorities report that during the coming year they will equip stations with public address systems. These systems will provide direct communications from operating headquarters to the traveling public.

Automatic fare collection, which has been studied extensively for the San Francisco Bay Area Rapid Transit District, is being progressed by the Illinois Central. Installed last year at its downtown Chicago stations and at several outlying suburban points, the system is being extended.

● **Review.** Units of signaling equipment installed during 1967 were the highest since 1960, totaling 6,981 units. Much of the increase was due to the greater emphasis on highway-railroad grade crossing safety. Flashing light signals were installed at 1,079 crossings compared to only 761 in the previous year. Flashing light signals and automatic short arm gates were installed at 638 crossings, up from 1966's figure of 459. Although road miles of new centralized traffic control declined slightly, the number of power switches and signals installed showed considerable increases.

Also of note last year was the completion and placing in operation of three automatic classification yards using digital computers for control, and the start of construction of a fourth such yard. Three other digital-computer controlled automatic yards will be started in 1968.

● **Communications.** Although the units of communications equipment installed in 1967 (23,936) fell below the previous year, this was the third year in a row that installations were over 20,000 units. As in previous years, the heavy purchasing was for carrier or circuit channelizing equipment, radio and telephone equipment. There was a 50% increase in installation of intercommunications systems.

The most two important pieces of news came from the AAR—the announcement concerning the establishment of T.R.A.I.N. (TeleRail Automated Information Network) and selection of Sylvania's KarTrak automatic car identification (ACI) system as the industry's standard. Both T.R.A.I.N. and ACI will be operational in 1969. Freight cars, trailers and containers will have to have ACI labels by Jan. 1, 1970 if used in interchange. Much of the communications expenditures for 1968 undoubtedly are based upon providing individual road implementation of ACI and T.R.A.I.N. participation. However, communications installations made in 1967 provide evidence that many railroad communications officers are rapidly approaching the point where they will have enough basic communications capability to handle ACI information requirements.

● **Signal training agreement.** Several railroads, during 1967, concluded training agreements with the Brotherhood of Railroad Signalmen. Generally these agreements provide for the training of assistant signalmen with the provision that if a man passes tests and meets certain job qualifications, he is promoted to signalman and receives a higher rate of pay.

This is not really new, Canadian National having had such an agreement and training program for several years, but 1967 saw a renewed interest which is expected to carry into 1968. The major impetus is the increasing amount of new signaling equipment containing a large number of electronic components and systems. A higher degree of skill is required of maintainers for this equipment, such as solid-state coding systems for CTC, automatic yards and hotbox detectors. Just 10 years ago, there were some 15,800 signal maintenance men, according to ICC statistics. These men maintained 81,600 miles of automatic block signaling, 25,200 miles of CTC and 36,300 highway grade crossings. Now the signal maintenance force has declined to 10,800, down almost 33%. Yet units of signal equipment installed have risen almost 45%. For example, miles of CTC are now 36,700 and grade crossings automatically protected number 50,100. Only block signaling has shown a small increase to 82,800. An awareness of the need for training signal maintenance men was aroused in 1967, and it appears that it will continue in 1968. ■

'68 OUTLOOK

# M/W men expect tie and rail renewals to rise this year

**The railroad plant will gain in strength in 1968. But the extent of that gain depends, as always, on the cost-price squeeze. Track surfacing may reach the 1966 level.**

By M. H. DICK, Engineering Editor

Maintenance-of-way officers have set their sights on programs which could mean a year of increased activity, compared with 1967.

Based on figures supplied by the M/W officers, Railway Age makes the following forecasts of activity in the various categories for 1968.

● **Rail renewals.** If top engineering officers are correct in their estimates, Class I railroads will lay about 500,000 tons of new rail for replacement purposes this year. If this figure holds, it will bring rail renewals back almost to the 1966 level. Except for that year, rail renewals for 1968 will, if the projection proves correct, be higher than for any year since 1957. An intriguing question at this point is whether future years will see further recovery in rail renewals following the 1967 dip. It is important that they do so if the tracks are to be maintained to a reasonable standard.

● **Tie renewals.** Here is the brightest spot of all for 1968, provided, of course, that no roadblocks are thrown in the way of present plans. After holding their own in 1967, when other categories of work were trending downward, it appears that tie renewals will move higher in 1968. Based on figures submitted by most of the large railroads, it is estimated conservatively that Class I roads will insert 17 million new crossties in existing tracks in 1968.

This will mean only a modest gain of slightly less than 10% compared with 1967. But it will bring tie renewals to a new high for any year since 1957. Thus, there is sound reason for hoping that tie renewals have entered a period which will see sustained rises from year to year until a level is reached that will assure maintenance of a reasonably good tie condition. Some engineers estimate that insertions of about 30 million ties a year are needed.

● **Secondhand ties.** The use of secondhand ties is expected to decline further in 1968. A total of about forty railroads gave figures on this activity and indicated that they expected to insert slightly more than 400,000 secondhand ties in 1968. These same roads said they used slightly more than 600,000 secondhand ties in 1967.

● **Track surfacing.** Following the slump that occurred in 1967, the year 1968 will see it snapping back close to the 1966 level, provided that engineering departments are allowed to carry out the programs they have revealed to this magazine. The 47 railroads that surfaced 36,180 miles of track in 1967 plan to boost the amount of track surfaced to 39,000 miles in 1968.

The year 1968 may be a year of decision in the maintenance-of-way field. It is not too much to say that in 1967 the engineering departments of many roads were thwarted in their attempts to perform as much work as they thought was necessary on the fixed properties. Their plans for 1968 indicate that a degree of determination is being displayed in efforts to push through adequate programs. For, if management is up against stark reality in the need to develop decent earnings statements, the chief engineer has his own picture of reality to struggle with. That involves the integrity of the tracks over which the trains operate that produce the revenues that are the foundation of the earnings statement.

In 1967 railroad properties, meaning especially the tracks, gained no strength and might even have lost some.

In 1968 it appears that these properties will pick up some much-needed strength but not a great deal considering the demands being made upon them.

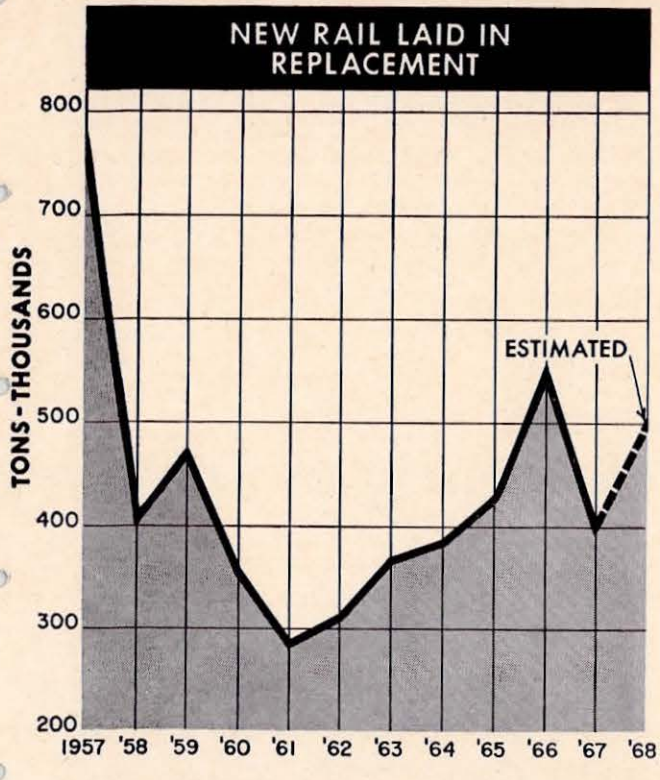
Which is to say that in 1967 the engineering departments of many railroads found themselves dealing with retrenchment-minded management. But in 1968 these same engineering departments are entertaining strong hopes that management will be in a more liberal mood.

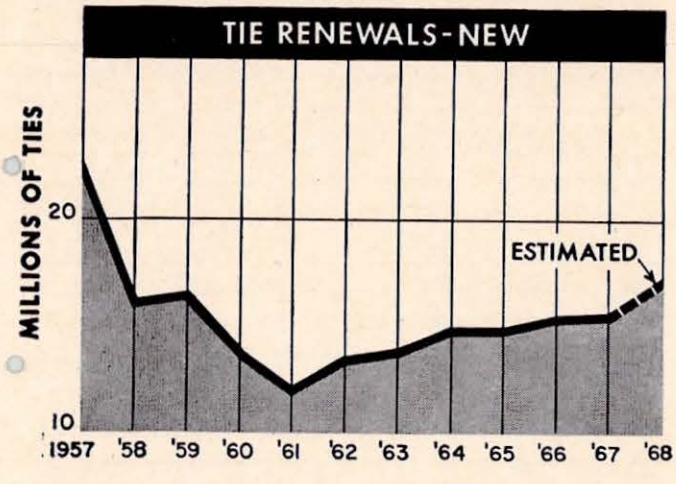
With wages going up and railroad business exhibiting a sluggish tone last year it was not surprising that some railroad managements found themselves under pressure to cut costs. Inevitably under such conditions it is the M/W departments where much of the cutting is done.

● **Many a slip . . .** The effects of this policy can be plainly seen by citing figures for a number of roads showing what the engineering departments hoped to get in 1967 and what they actually got. On railroad A, for example, the chief engineer at the end of 1966 estimated that his forces would lay nearly 50,000 tons of new rail in tracks for replacement purposes in 1967. By the end of 1967 this figure had shrunk to less than 30,000 tons. On railroad B the chief engineer said at the end of 1966 that he expected to lay nearly 55,000 tons of new rail in replacement in 1967. Actually, he laid little more than half this amount.

Then there is the sad case of railroad C. For its 1967 rail-laying program this road purchased, welded and distributed along its tracks a total of more than fifty miles of new rail. At year's end none of this rail had been inserted in the tracks.

With tie renewals the picture was somewhat the same. Near the end of 1966 a total of 36 railroads furnished this magazine with figures showing the number of ties each railroad expected to insert in track for renewal purposes in 1967. Approaching the end of 1967 the same roads provided figures showing the number of new ties they had actually inserted during the year. Examination of the figures showed that on 27 of the 36 roads the number of ties inserted in tracks during the year fell short of the earlier statements, some of them by considerable amounts. On only nine of the reporting roads did the number of ties




inserted in tracks in 1967 exceed the earlier projections.

It should be emphasized that the estimates of individual railroads for both rail and tie renewals for 1967 were in each case made by the chief engineer or a comparable officer. In many cases the figures had doubtless been approved by management. At the very least it can be assumed that, in making their projections of rail and tie renewals, the chief engineers felt reasonably sure they would be able to go ahead with the projected plans.

Clearly there were forces at work in 1967 that seemed bent on interfering with M/W programs. Retrenchment by management was one of these and no doubt the most important. Other forces that might have been at play were shortages of labor in some areas and perhaps, here and there, a dearth of crossties. However, it is safe to say that the over-all effect of these latter two factors was negligible, leaving retrenchment as the main culprit.

● **A dream shattered.** The cost-squeeze situation that unfolded on some roads last year and its effect on M/W programs must have stirred feelings of disappointment among those M/W officers who had been talking hopefully in recent years about the progress being made toward long-range programming. The stop-and-go method of performing property maintenance was on the way out, they had been saying, because it was uneconomical and wasteful. It was to be replaced by a system under which M/W programs would be stabilized at a level sufficient to meet the needs of the properties and maintained at about that level year after year. Management would be sure to recognize that this system was much more efficient and economical than the stop-and-go approach.

Events proved there was a flaw in this line of reasoning. The flaw was simply that the message was not getting through to management. Or if it was, management was being swayed by other and stronger considerations, such as stark laws of economics and their effect on the fashioning of balance sheets and earnings statements.

● **Dip in rail renewals.** With these things in mind it is appropriate to take a look at the M/W picture for 1967 as portrayed by the total amounts of work performed in the several main categories, such as rail and tie renewals and track suurfacing. Based on figures furnished by all except two or three of the larger roads it is estimated that Class I railroads as a whole inserted 400,000 tons of new rail in existing tracks in 1967. This was a drop of about 150,000 tons, or 27.3%, compared with 550,630 tons of new rail laid in 1966, as reported by the AAR's Bureau of Railway Economics.

● **Ties hold their own.** Tie renewals in 1967 compared with 1966 were practically a standoff. This magazine estimates that last year Class I railroads, inserted 15,500,000 new crossties in existing tracks for replacement purposes. The comparable AAR official figure for 1966 was 15,345,000 ties. Thus, even with the cutbacks from preliminary plans, tie renewals for 1967 maintained the pace set in the previous year and were higher than for any year since 1959. If railroad engineering departments had been allowed to proceed with plans as projected late in 1966, Class I railroads would have installed about 16,750,000 new crossties last year.

Insertions of secondhand ties continued to drop last year. Forty-two roads reported their activities in this area. These roads installed a total of 606,102 secondhand ties last year, compared with 652,328 such ties in 1966.

For the first time since this magazine began keeping records on track-surfacing the amount of track surfaced failed to show an increase over the previous year. The forty-seven roads that submitted figures on this category of work surfaced 36,180 miles of track last year. This was 14,231 miles, or slightly more than 35%, less than the amount of this work done in 1966. An interesting exercise would be to translate this reduction in track surfacing into its effect on the riding qualities of the tracks.

● **Iron control.** The iron control that railroads exercised over maintenance outlays last year was reflected in the amount of money spent for maintenance of way and structures.

According to the Association of American Railroads, Class I railroads, in the first nine months of 1967 (the latest period for which figures are available) spent $969,263,000 for MW&S. This was a decrease of 0.1%, compared with the $969,957,000 spent in the same period of 1966. Thus, in spite of increases in the cost of manpower and materials, the dollar outlay for property maintenance is being held at about the same level that has prevailed for some time.

The M/W ratio (ratio for MW&S expenses to total operating revenues) for the first nine months of 1967 was 12.6%, a respectable figure even considering that it shows a slight increase compared with the ratio of 12.4% for the same period of 1966. The fact that the M/W ratio was held in such a narrow range at a time when revenues were in a down trend is further testimony to the rigid control being exercised over M/W expenditures. ■

By BURTON N. BEHLING, VICE PRESIDENT, ECONOMICS AND FINANCE DEPARTMENT, ASSOCIATION OF AMERICAN RAILROADS

# '67 REVIEW

# Piggyback is bright spot in a

**HIGHLIGHTS OF 1967:** There were notable bright spots in the year's performance. Piggyback (TOFC) traffic bucked a general downtrend, establishing another record high as new and faster services were initiated. For the first time since 1934, the railroads transported to distribution centers one-half of all new motor vehicles produced as modern multi-deck rack cars continued to prove their economy and effectiveness. Unit train operations for moving volume commodities economically in shuttle-type service continued to expand, and a new "rent-a-train" concept designed to improve utilization of freight cars in handling grain traffic was introduced.

For the railroads as for the economy, the year 1967 was a turbulent one. Lags in production sectors were accompanied by an acceleration of inflationary pressures. It was a year of hesitancy in coming to grips with government fiscal and monetary problems affecting the health of the national economy.

The combination of lower traffic volumes, sharply escalating wages, and increases in other expense categories brought about a severe squeeze on railroad net earnings. Compared with the year 1966, net income of Class I railroads dropped more than one-third and the average rate of return on net investment fell to about 2½%.

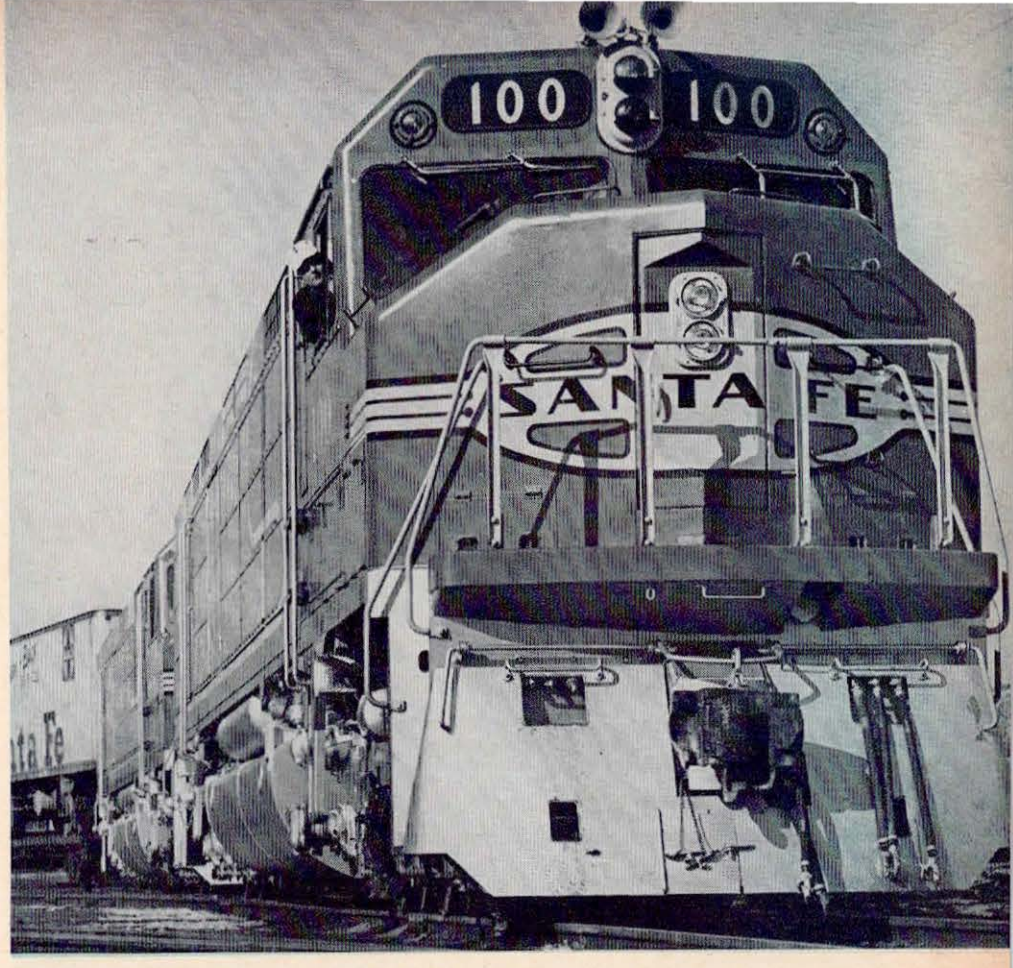
These declines would have been even more drastic except for intensified measures of efficiency in railroad operations, largely made possible by the heavy expenditures of recent years for improved technology and equipment. A modest general rate increase—the first since 1960—which became effective Aug. 19 with interim approval of the ICC also helped to temper the adverse effects of cost escalations upon railroad earnings.

Although capital spending by railroads was curbed by lagging traffic, impaired earnings and high costs of borrowed funds, as well as by suspension for part of the year of the investment tax credit, total outlays by Class I railroads in 1967 amounted to $1.5 billion —third highest on record and one-fourth less than the all-time peak reached in 1966. In addition, investments in new freight cars by other than Class I railroads amounted to an estimated $500 million.

Further progress marked the railroad merger movement to create more efficient systems and improved service. After a series of court tests culminating in approval by the U.S. Supreme Court, merger of the Atlantic Coast Line and Seaboard Air Line railroads to form the Seaboard Coast Line Railroad became effective on July 1. Reversing a 1966 decision, the ICC late in 1967 approved the Northern Lines' merger proposal to join the Great Northern, the Northern Pacific, the Chicago, Burlington & Quincy, and the Spokane, Portland & Seattle. Also, the Pennsylvania-New York Central merger was upheld by the U.S. Supreme Court early in the year but was again appealed and the final favorable decision of the Court was issued on Jan. 15, 1968.

Operations of the Cabinet-level Department of Transportation officially began on April 1, 1967. Created to centralize jurisdiction over the federal government's transport policies and programs, the year's activities of the new agency were largely devoted to matters of organization and to the formation of plans for attacking basic transportation problems.

# dull year




**SUPER SERVICE:** '67 tests paved way for Santa Fe's "Super C" train.

## Financial results

A downturn of railroad earnings in 1967 came after five consecutive recovery years in which the beneficial effects of new operating efficiencies and rising freight volume had combined to permit both lower freight rates and higher net earnings.

For the 12 months ended Sept. 30, 1967, net railway operating income fell to $712 million from $1,046 million in the year 1966, producing a rate of return of 2.59%, lowest since 1961. Net income for the period was $586 million, down from $904 million in calendar 1966 and the lowest since 1962. Even if railroads were able in the fourth quarter of 1967 to match the receding earnings of the corresponding period of 1966, their net for the full year will have dropped more than one-third from that of 1966.

It has been said that the financial reversal of 1967 was a classic demonstration of leverage in the railroad industry, as a moderate reduction in traffic and revenue and rising expenses combined to produce a steep decline in net earnings. Actually it was that and more. It also demonstrated the time-lag problems encountered in adjusting rates to rising costs. When petitions for freight rate increases were filed in May 1967, net income was on its way to a 45% second-quarter decline, and by August 1967 when increases requested were partially authorized the decline had materially worsened. At year end the railroads had not yet been able to publish in full the increases they had decided in May were required. Meanwhile, another round of cost increases was well under way.

Total revenues, expenses and earnings for the calendar year 1967 will not differ much from those for the 12 months ended Sept. 30, 1967, shown in Tables 1 to 5. Compared with the preceding year all categories of revenues will show decreases in the full year 1967, although freight revenue may have slightly exceeded the $9,119 million shown for the 12-month period in Table 3, while passenger and mail revenues were less than there shown. The total is estimated to have fallen about 2% to $10.4 billion from 1966's revenue record. Expenses were up from the preceding year, despite lower employment and reduced traffic, owing mainly to higher wage rates. Taxes, on the other hand, were less than in 1966, despite substantially higher payroll taxes. Federal income taxes, showing the effects of reduced taxable earnings together with availability of investment credits carried forward from prior years and usable under liberalized provisions enacted in 1967, fell below $100 million for the first time in over 20 years.

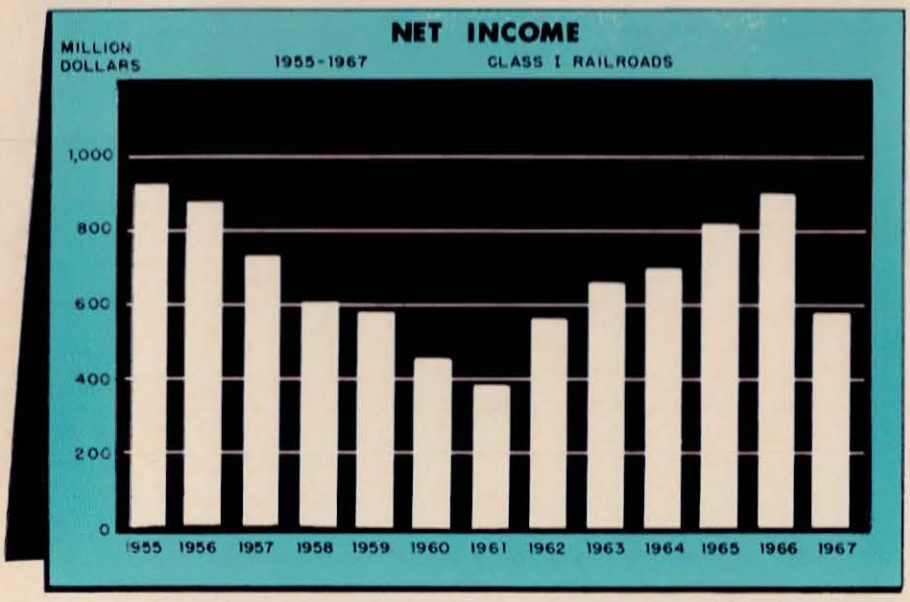
Thus, indications are that net income for the calendar year 1967 will fall between $550 million and $600 million, down from $904 million in '66.

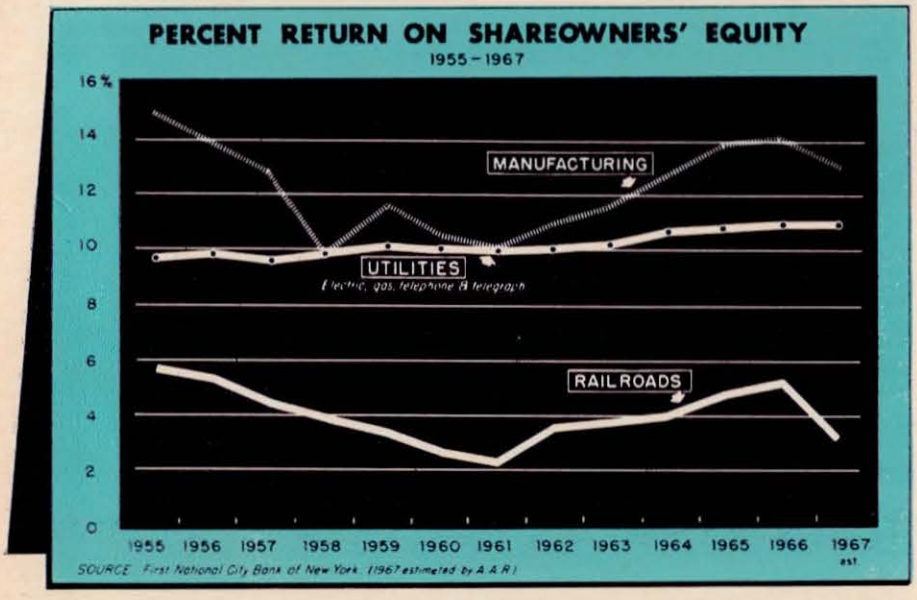
While the railroad industry was not alone in suffering weakened earnings in 1967, railroads continue to maintain a relatively low position among corporations generally and transportation companies in particular in regard to earnings rates. The latest analysis of leading corporate groups published by New York's First National City Bank shows railroads near the bottom in ratio of net income to shareowners' equity with an average of 5.1%, based on 1966 results. Air transport was first, with 23.8%, and common carrier trucking third, with 21.9%. Manufacturing corporations averaged 14.1%, nearly three times the rail ratio, while the public utilities' rate was double that of the rails. Preliminary indications are that railroads in 1967 did not improve their relative standing in this regard.

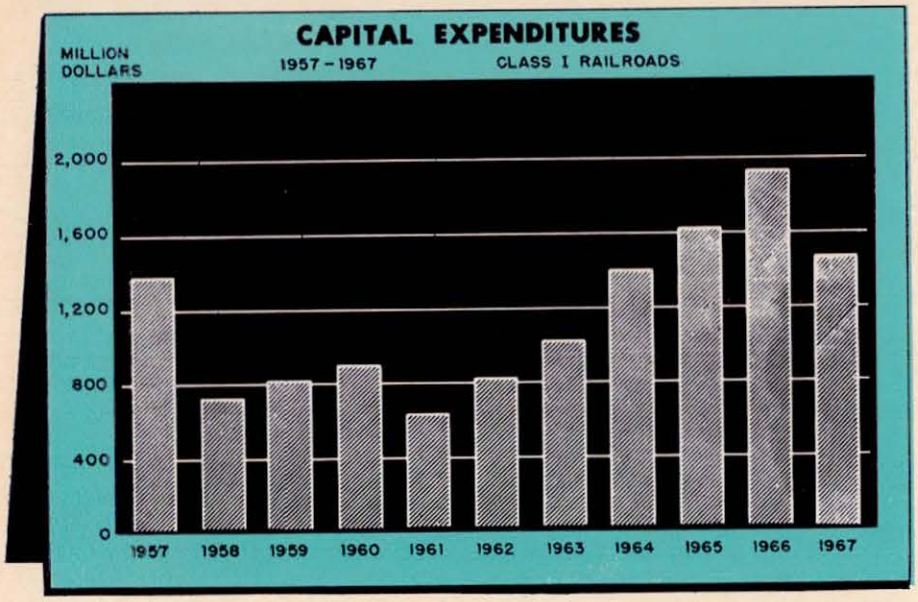
## Capital expenditures

Expenditures for new equipment and other betterments by Class I railroads approximated $1.5 billion in 1967, down one-fourth from the record $1,953 million spent in 1966. Despite the decline, spending nearly equaled the average for the four preceding years and made 1967 the third highest year of record, exceeded only by 1965 and 1966. Of the total, nearly $1,125 million was spent for rolling stock and the remainder of $375 million for improved roadway and structures.

Curtailment of expenditures in 1967 was attributable in large measure to temporary suspension of the 7% investment tax credit effective Oct. 10, 1966, which discouraged placement of orders for new equipment during the last




quarter of 1966 and most of the first half of 1967. Restoration of the tax credit in June 1967, as to property ordered after March 9 or delivered after May 23, resulted in a flurry of deferred equipment orders. However, with an improved car supply, a lower level of traffic, declining earnings and rising interest rates, commitments for future capital spending did not regain former levels.

Statistics of capital spending as shown in Table 6 do not include expenditures made for railroad cars by private owners, car leasing companies, and short-line or switching railroads. Including such spending, total expenditures for railroad plant during the year approximated $2 billion.

While many improvement programs have not yet been announced for the full year 1968, continuing financial pressures from rising wage rates, material prices, payroll taxes and interest rates will make it difficult for railroads to regain the 1967 level of capital spending. Better utilization of existing equipment as well as operating efficiencies resulting from mergers may reduce somewhat the need for additional equipment.

Purchases of fuel, material and supplies primarily used in operations and maintenance are estimated at $1.6 billion for the year 1967, about equal to the $1,605 million reported for 1966. The estimate represents a slightly lower level of operations and maintenance offset by higher prices for materials and supplies.

## Progress in technology

Advancing technology was responsible for many new developments in 1967 railroad operations, ranging broadly from roadbed and track to rolling stock and motive power, to communications and signaling, as well as to office equipment and management information systems.

Among the most significant developments were three computer-related systems for better control of freight car distribution and use, bearing the acronyms ACI, TRAIN and UMLER.

ACI—for Automatic Car Identification—passed a milestone with the selection of a standard system to identify electronically and to record initials and numbers of freight cars moving in road trains and yards. A decision to adopt a multicolored label system was made by the AAR Board of Directors on Sept. 29, 1967. The selection culminated seven years of intensive study by the AAR Research Center and others to determine which system promised to prove most reliable under all field conditions. Accurate and instantaneous recording of freight equipment move-

ments by electronic devices far exceeds human capabilities. It is expected to reduce input errors greatly while pinpointing the location of individual units of rolling stock.

TRAIN—for TeleRail Automated Information Network — contemplates the current reporting to a national data center of freight car interchange between railroads. This central data bank of car locations and flow, authorized by the industry in 1967, will provide accurate and timely information needed by the AAR Car Service Division to distribute cars equitably between roads and geographic areas to alleviate imbalances in car supply.

UMLER — for Universal Machine Language Equipment Register—will enable railroads to determine instantly, by computer inquiry, the physical characteristics of any freight car in North America.

ACI, TRAIN and UMLER, in conjunction with sophisticated information systems being established on individual railroads, will make possible more effective utilization of the national freight car fleet and improved customer service.

● **Journal research.** While the hotbox problem no longer exists in its former dimensions, the AAR Research Department continues to work on journal bearing improvement. Reports available for the first seven months of 1967 show that hot box set-outs had been reduced from the corresponding 1966 figure of 0.61 per million car-miles to 0.54 in 1967 for a 12% decrease. Performance in May 1967 reached 2,058,957 car-miles per hot box set-out, the greatest mileage between hot boxes ever achieved. With approximately one-fifth of the freight car fleet now equipped with roller bearings, and applications of improved plain bearings being made as the older design bearings are phased out, this favorable trend should continue.

● **Freight car improvements.** During the year the use of 60-inch couplers for new cars 85 feet or longer was made mandatory. A modified arrangement using a 100-inch extended yoke design is being studied. Preliminary trials indicate that the longer coupler improves tracking characteristics even more, but further study is needed to evolve a practical design for coupler assembly of this length. Also made mandatory for new cars of high capacity were longer travel springs, snubbing means and finish smoothness requirements on center plate and other contact surfaces of the truck. Studies of the rocking action of large cars are being continued.

A new type of open hopper called the "Side Gate Discharge" handles in

## Table 1: Rate of Return and Net Income—1957-1967

| Year | Net railway operating income (millions) | Rate of return on investment after depreciation | Net income after fixed charges (millions) |
|---|---|---|---|
| 1957 | $922 | 3.36% | $737 |
| 1958 | 762 | 2.76 | 602 |
| 1959 | 748 | 2.72 | 578 |
| 1960 | 584 | 2.13 | 445 |
| 1961 | 538 | 1.97 | 382 |
| 1962 | 726 | 2.74 | 571 |
| 1963 | 806 | 3.12 | 652 |
| 1964 | 818 | 3.16 | 698 |
| 1965 | 962 | 3.69 | 815 |
| 1966 | 1,046 | 3.90 | 904 |
| 1967* | 712 | 2.59 | 586 |

*12 months ended September 30.

## Table 2: Condensed Income Account—1957, 1966 and 1967

| | 1957 (millions) | 1966 (millions) | 1967* (millions) |
|---|---|---|---|
| Total operating revenues | $10,491 | $10,655 | $10,407 |
| Total operating expenses | 8,228 | 8,118 | 8,230 |
| Taxes | 1,068 | 968 | 907 |
| Rents (net debit) | 273 | 523 | 558 |
| Total expenses, rents and taxes, excl. Fed. inc. taxes | 9,249 | 9,422 | 9,622 |
| Ratio to revenues | 88.2% | 88.4% | 92.5% |
| Net railway operating income | $922 | $1,046 | $712 |
| Net income | 737 | 904 | 586 |

*12 months ended September 30.

## Table 3: Operating Revenues—1957, 1966 and 1967

| | 1957 (millions) | 1966 (millions) | 1967* (millions) |
|---|---|---|---|
| Freight | $8,929 | $9,281 | $9,119 |
| Passenger | 735 | 544 | 494 |
| Mail | 292 | 304 | 287 |
| Express | 97 | 67 | 65 |
| All other | 438 | 439 | 441 |
| Total | 10,491 | 10,655 | 10,407 |

*12 months ended September 30.

## Table 4: Operating Expenses—1957, 1966 and 1967

| | 1957 (millions) | 1966 (millions) | 1967* (millions) |
|---|---|---|---|
| Maintenance of way | $1,431 | $1,304 | $1,303 |
| Maintenance of equipment | 1,913 | 1,844 | 1,872 |
| Transportation | 4,095 | 4,139 | 4,198 |
| Traffic, general and other | 789 | 831 | 857 |
| Total | 8,228 | 8,118 | 8,230 |

*12 months ended September 30.

## Table 5: Railway Tax Accruals—1957, 1966 and 1967

| | 1957 (millions) | 1966 (millions) | 1967* (millions) |
|---|---|---|---|
| Payroll taxes | $342 | $439 | $474 |
| Federal income taxes | 320 | 186 | 72 |
| All other taxes | 407 | 343 | 361 |
| Total taxes | 1,068 | 968 | 907 |

*12 months ended September 30.

## Table 6: Capital Expenditures and Purchases—1957-1967

| | Gross capital expenditures | | | |
|---|---|---|---|---|
| Year | Rolling stock (millions) | Other facilities (millions) | Total (millions) | Purchases of fuel, material and supplies (millions) |
| 1957 | $1,008 | $ 387 | $1,395 | $1,816 |
| 1958 | 480 | 258 | 738 | 1,231 |
| 1959 | 568 | 250 | 818 | 1,430 |
| 1960 | 633 | 286 | 919 | 1,463 |
| 1961 | 427 | 219 | 646 | 1,262 |
| 1962 | 593 | 240 | 833 | 1,311 |
| 1963 | 785 | 259 | 1,044 | 1,401 |
| 1964 | 1,140 | 278 | 1,417 | 1,476 |
| 1965 | 1,304 | 327 | 1,631 | 1,498 |
| 1966 | 1,555 | 398 | 1,953 | 1,605 |
| 1967 (est.) | 1,125 | 375 | 1,500 | 1,600 |

Note: Capital expenditures of Class I railroads do not include expenditures for railroad equipment made by private car companies and lessors. (See text.)

excess of 200,000 pounds of coal. With cam-operated automatic side gates 27 feet x 2 feet 9 in. in size, the car can be unloaded in motion in nine seconds.

A new high-capacity stock car over 85 feet long, equipped with a special end-of-car cushioning coupler arrangement, promises to place the movement of stock on a higher unit capacity basis. Another innovation for livestock is a container-type flat car which, with containers removed, may be used as a general purpose flat car.

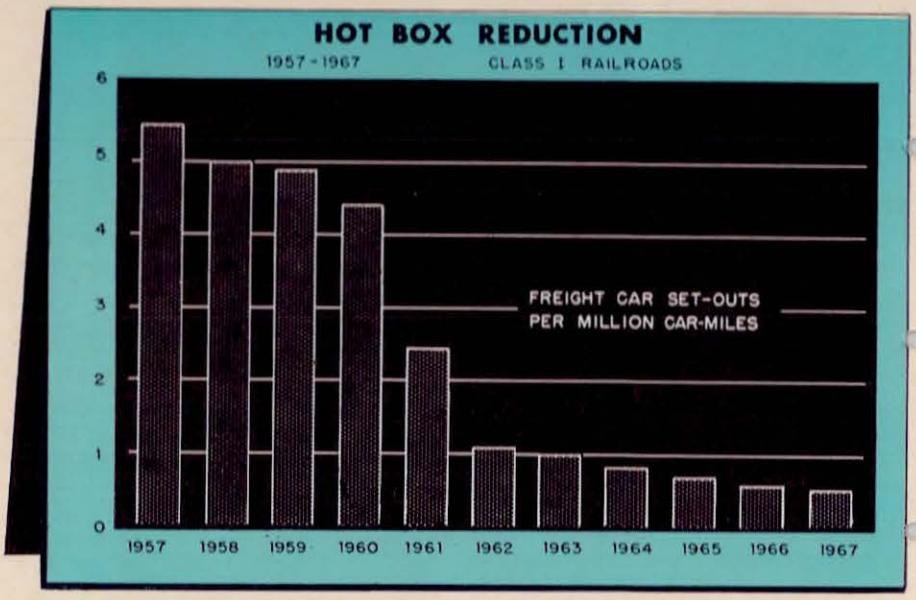
New stainless steel cars for corrosive-type minerals are easily cleaned. They can be made usable for other commodities such as grain by simply washing the car interior with water.

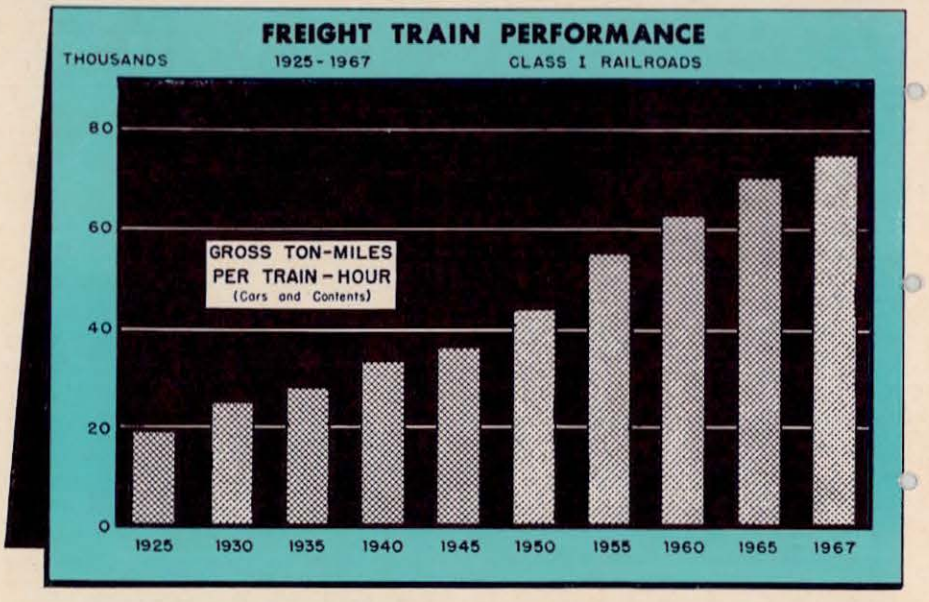
A new type of basic tank car can be modified to provide 40 different designs. This "Changeable Car," which can be lengthened or shortened, provides flexibility to keep car capacity keyed to changing traffic requirements.

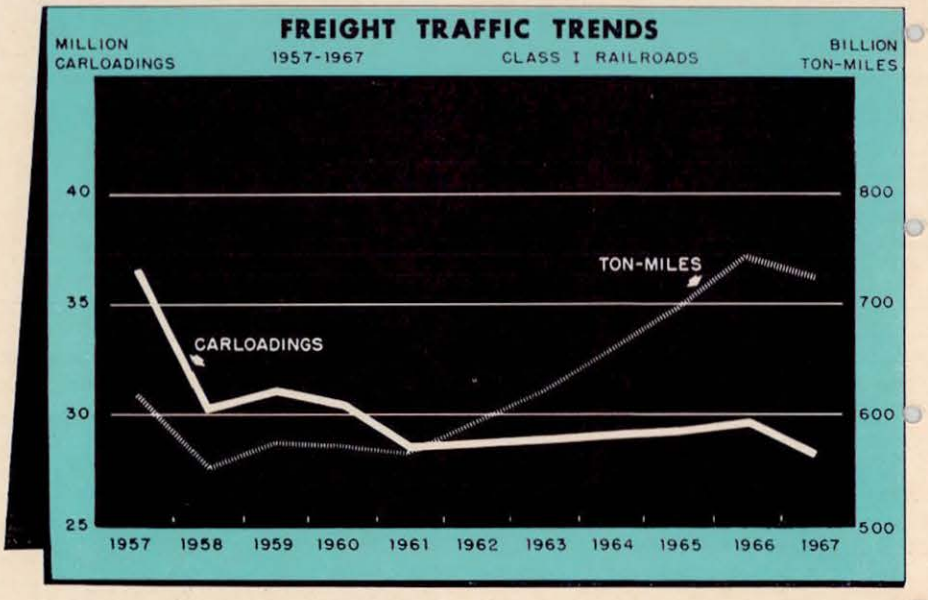
● **Motive power progress.** Single-unit diesel locomotives have been developed with an output of 6,000 horsepower, obtained by slightly increasing cylinder size and engine speed, and adding extra cylinders. Alternators and solid-state electrical control circuits update the electrical system of these locomotives.

Another advance in train operation places diesel units near the middle of the train controlled by radio from a master unit on the head end. Such "slave" units may also be controlled by a dynamometer coupler from which the circuit mesage is fed into an analog computer programmed to control the horsepower output in accordance with drawbar pull requirement. These developments have permitted a length of train formerly considered impractical. During 1967 a 500-car train hauled 48,000 tons of coal using six diesel units of 21,600 horsepower, including three "slave" units.

● **Maintenance efficiencies.** New machines and improvements provide more efficient mechanized maintenance of track and structures. These include: for snow removal—a rotary snow plow mounted on a rubber-tired, multipurpose industrial tractor, a snowblower attachment for mobile track machines, and a new type of turbojet snowblower; for vegetation control—improved chemicals and a track-mounted weed mower, weed-spray trucks for use on the right-of-way, a brush cutter mounted on a bulldozer, and a light-weight one-man-held brush cutter; for track cleaning—a track-mounted yard cleaner that will load one car of debris per hour, a truck-mounted vacuum cleaner, and a larger track-mounted vacuum track



cleaner; for track maintenance—a machine combining a tractor, spot tamper, backhoe, cribber, and small crane with hydraulic and electric connections for drills and wrenches for work on highway grade crossings, a multipurpose electromatic tamper for track switches, a ballast regulator and dresser combined with a tamper, and a self-propelled machine to preset rail anchors; for structures—a packaged building that can be assembled in widths from 6 to 24 feet and any length in increments of 3 feet; and for general purpose use—rubber-tired mobile cranes with hook heights up to 110 feet, a portable cutoff saw for metals, concrete, asphalt, plastics, and other materials, and a mobile grouting unit. A new development in waterproofing of concrete bridge decks is the use of butyl rubber sheeting in lieu of bituminous and fabric coating.

In 1966, the latest year for which data are now available, 2,731 track-miles of continuous welded rail were laid. This is 375 miles, or 16%, more than were laid in 1965. Development of a hydraulic rail puller and expander has facilitated the application of thermite welds and insulated joints to connect the long strings of welded rail in the field.

● **Hi-speed experiments.** Developments for inaugurating high-speed passenger-train operations in the Northeast Corridor projects moved toward completion in 1967. Regular operations between Washington and New York with new electrically-driven equipment are expected to begin early in 1968, to be followed shortly by high-speed service between New York and Boston, using turbine-driven equipment. Experiments are being continued to develop needed data on track condition and equipment performance. During 1967, test runs up to 164 mph were made with the electric cars and up to 170 mph with the turbine train.

● **Signaling and communications.** A development of interest resulting from an investigation conducted at the AAR Research Center is a new reflectorized bulb for crossing signals which increases brightness up to 400% and light output 60%. New high-speed solid state code systems with a capability up to 2,000 bits per second permit the extension of CTC to include the entire main line of a railroad, with all train dispatching conducted from one central station.

Improvements in microwave and channelizing equipment make it possible to handle the volume of information necesary to optimize benefits from ACI and management information systems. Audio-frequency overlay track circuitry has been improved and its use extended on railroads to reduce the number of insulated joints for crossing protection signals. An installation has been authorized for the operation of wayside signals without the use of insulated track joints by utilizing a pulse-modulated code system.

## Table 7: Freight and Passenger Traffic—1957-1967

| Year | Revenue carloadings (thousands) | Piggyback carloadings (thousands) | Revenue ton-miles (millions) | Revenue passenger-miles (millions) |
|---|---|---|---|---|
| 1957 | 35,500 | 249 | 618,194 | 25,884 |
| 1958 | 30,222 | 278 | 551,667 | 23,269 |
| 1959 | 31,015 | 417 | 575,529 | 22,047 |
| 1960 | 30,441 | 554 | 572,309 | 21,258 |
| 1961 | 28,590 | 591 | 563,361 | 20,283 |
| 1962 | 28,722 | 706 | 592,862 | 19,902 |
| 1963 | 28,871 | 797 | 621,737 | 18,494 |
| 1964 | 29,027 | 891 | 658,639 | 18,245 |
| 1965 | 29,248 | 1,034 | 697,878 | 17,378 |
| 1966 | 29,623 | 1,163 | 738,395 | 17,084 |
| 1967 | 28,050 | 1,207 | e720,000 | e15,100 |

e—Estimated.

## Table 8: Carloadings by Commodity Groups—1967 vs. 1966

| | Carloadings in 1967 (thousands) | Per cent of total | Increase over 1966 Carloadings (thousands) | Per cent |
|---|---|---|---|---|
| Miscellaneous | 15,513 | 55.3 | d649 | d4.0 |
| Coal | 5,543 | 19.8 | d44 | d.8 |
| Grain and products | 2,458 | 8.8 | d419 | d14.6 |
| Forest products | 2,013 | 7.2 | 18 | .9 |
| Ore | 1,830 | 6.5 | d302 | d14.1 |
| Coke | 364 | 1.3 | d70 | d16.0 |
| Livestock | 87 | .3 | d23 | d20.8 |
| Total carloads | 27,807 | 99.1 | d1,488 | d5.1 |
| Merchandise, LCL | 242 | .9 | d85 | d26.0 |
| Total carloadings | 28,050 | 100.0 | d1,574 | d5.3 |
| TOFC (piggyback) included above | 1,207 | 4.3 | 46 | 3.8 |

d—Decrease

## Traffic trends

Despite the effects of production lags in the nation's economy, railroad freight traffic statistics in 1967 reflected only a small reduction in ton-miles from peak year 1966. An increase in commuter travel tempered a relatively sharp over-all decline in rail passenger-miles.

As shown by freight traffic statistics in Table 7, revenue ton-miles in 1967 amounted to an estimated 720 billion, down about 2.4% from the previous year's all-time high. Revenue carloadings dropped 5.3% to a total of 28,049,541. The 1967 ton-mile total has been exceeded in the past by only the year 1966 and by the two war years, 1943 and 1944.

The smaller decrease in ton-miles than in carloadings reveals a continuing trend toward the carriage of heavier loads in higher-capacity cars along with a somewhat longer average haul. During the last decade the average number of ton-miles produced by Class I railroads for each car of revenue freight loaded has increased by nearly one-half, from 17,414 in 1957 to about 25,700 in 1967. Contributing to this increase was a decline in LCL traffic from about 8% of total carloadings in 1957 to less than 1% in 1967, but the heavier average load is attributable mainly to incentive rates and larger cars.

Forest products was the only identifiable commodity group to show an increase in 1967 carloadings, rising 0.9% over 1966. Among the other major commodity classes, grain and grain products dropped 14.6%, coal was down 0.8%, ore was off by 14.1% and the important miscellaneous group, which accounts for 55% of total carloadings, registered a 4.0% decline. The smallest commodity groups—coke, livestock and LCL—showed the sharpest declines.

Piggyback loadings continued to set new records in 1967, rising to a total of 1,207,242 revenue cars, up 3.8% over the 1966 total and up 70% in five years. The 1,207,242 cars carried 1,983,793 trailers or containers, up

3.7% from the preceding year and 74% higher than 1962's total. The average number of trailers or containers per revenue load remained at 1.64, the 1966 level.

Including non-revenue handling of empty trailers, the total 1967 rail movement in piggyback service amounted to 2,824,821 trailers or containers, a year-to-year increase of 6.7% and a five-year increase of 89%.

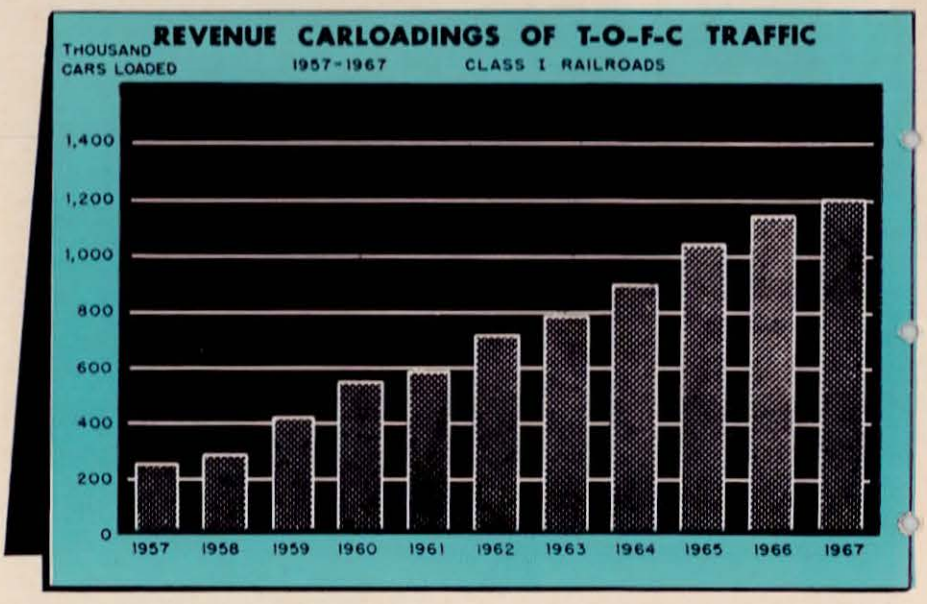
In addition to the piggyback freight traffic cited above, some 2,200 trailers or containers are used each week to transport mail and express in both freight and passenger trains. This relatively new operation, which averaged only 374 units per week in 1962, has had steady growth. The weekly average climbed to 1,114 in 1964, to 1,649 in 1965, to 2,095 in 1966, and then rose further to the 1967 level of 2,200 units per week.

The railroads' share of the movement of new motor vehicles also increased in 1967, although the number shipped will show a slight drop due to reduced production. Statistics to be released in 1968 by the Automobile Manufacturers Association are expected to show that the railroads handled nearly 4.5 million new automobiles and trucks in 1967, or approximately one-half of total shipments by all modes of transportation, up from 45.7% of the 1966 total. This marks the first time since 1934 that the railroads have captured as much as 50% of new motor vehicle traffic. Prior to the introduction of the giant double- and triple-deck rack cars in 1960, the industry's share had dwindled to 8%.

Despite an increase in rail commuter travel, total passenger-miles handled by Class I roads in 1967 dropped sharply from the year before, owing in part to heavy rail travel during the airline strike in the summer of 1966. Commutation passenger-miles, which now account for more than one-fourth of the rail total, registered an increase of 2% over the 1966 figure. But the over-all passenger-mile total dropped by nearly 12% to 15.1 billion. Preliminary indications are that intercity coach travel was down about 14% to 9.3 billion, while parlor and sleeping-car passenger-miles dropped 24% to 1.6 billion.

As long-haul passenger traffic declined, the Post Office Department also accelerated its discontinuance of Railway Post Office cars. Continuing shifts of first-class mail to other carriers and of second-, third- and fourth-class mail to freight service put additional economic pressure on the railroads' remaining passenger-train services.

The industry will watch with hopeful interest the effect on traffic trends of inauguration of high-speed medium-distance rail passenger service in the Northeast Corridor in 1968.




## Rates and fares

• **Freight rates.** For the first time since 1960, the railroads in 1967 applied to the Interstate Commerce Commission for a general freight rate increase. Their petition was based upon an immediate and urgent need for additional revenues to cope with increased costs resulting principally from rising labor costs and prices. Two separate requests made in mid-May—one by the Eastern and Western carriers and the other by the Southern lines—were consolidated in a single proceeding. *Ex Parte 256, Increased Freight Rates 1967.*

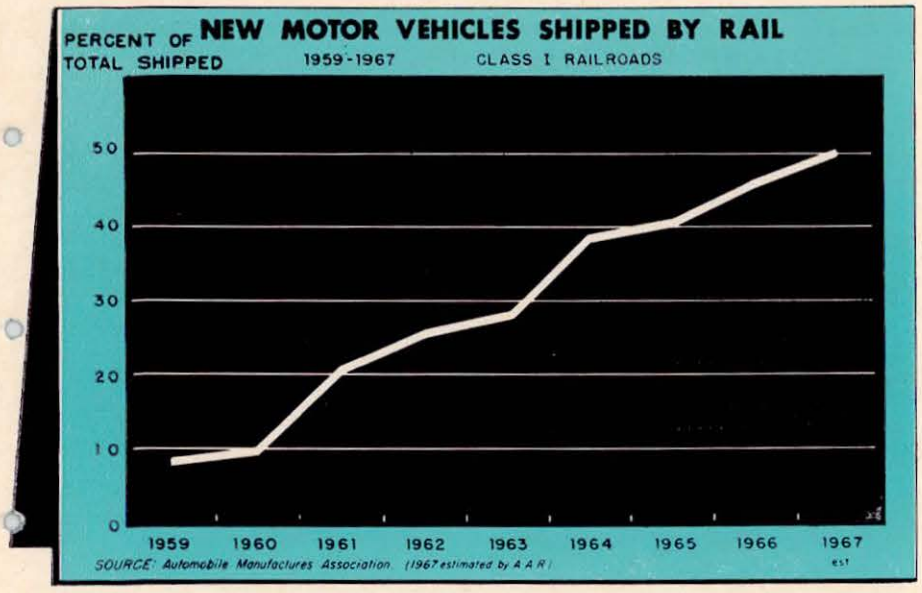
After submission of verified statements in support of the proposed increases, statements and protests in opposition, and replies, briefs were filed and oral argument was heard by the entire Commission on July 11 and 12. In an interim report dated July 31, 1967, the Commission found existing rates "clearly inadequate" and allowed the proposals to go into effect on an emergency basis, with specific exceptions. The Commission estimated that the increases granted would add approximately $300 million or slightly over 3% to annual revenues. Master Tariff X-256 became effective Aug. 19.

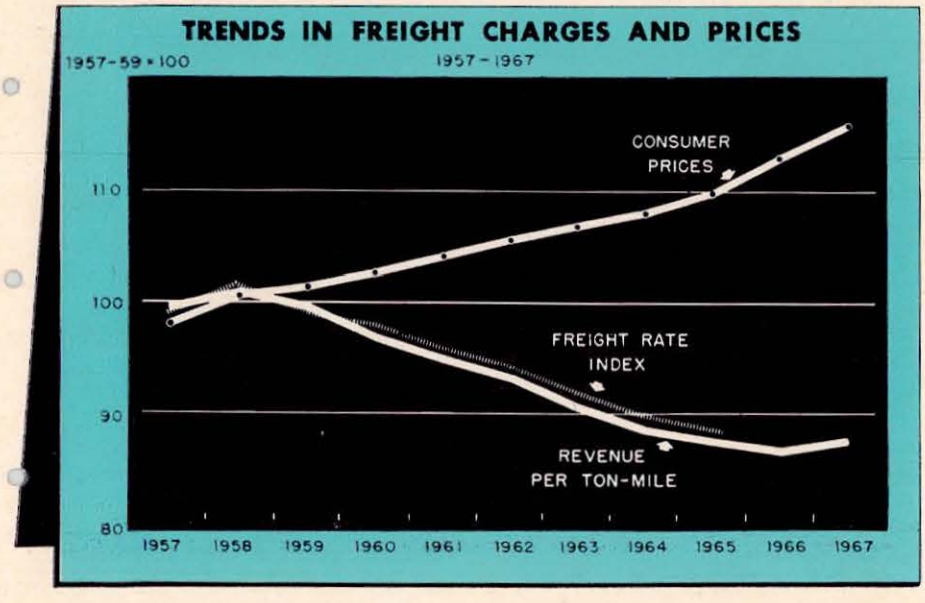
The Commission's order provided that all increases sought by the railroads and all increases authorized would be subject to further investigation, and it set the proceeding for hearing on Oct. 3 in Washington for presentation of oral testimony and cross-examination of witnesses. Nine separate hearings were held during October covering various commodities and accessorial services. Briefs were filed and oral argument was heard on Nov. 8-9. Final report was awaited at year's end.

• **Piggyback.** In compliance with the Commission's order in Ex Parte 230, significant changes in the railroads' trailer-on-flat-car rate structure came about. Eastern lines provided for publication of charges for the local drayage or cartage of trailers between places of loading and unloading and carrier's ramp. In Western territory, the Trans-Continental lines published special charges for furnishing highway trailers in Plan IV TOFC service. Also, charges were published for the first time for ramping and de-ramping.

• **Rent-a-Train.** An innovation in railroad rate-making in 1967 was the Illinois Central's "Rent-a-Train" grain tariff. The basic concept of this tariff involves an annual payment of $1 million with carrier equipment or $700,000 with shipper equipment, plus a charge of 1½ mills per ton-mile or $5 per train-mile, whichever is greater, for hauling an 86-car train. The Department of Transportation, in a statement filed with the Commission, went on record as favoring the plan and stated "it is uniquely adapted to promote the more efficient rail movement of a highly seasonal commodity to the benefit of both carrier and shipper." The entire Commission permitted the "Rent-a-Train" proposal to go into effect on Nov. 29, 1967, as scheduled, subject to investigation in Docket No. 34905.

• **Incentive rates.** Rate adjustments cited below are illustrative of what the




carriers are doing to encourage loading of available equipment to capacity, thereby improving the efficiency and competitive position of the railroads:

—Reduced commodity rate scales on malt liquors, subject to minimum weights of 90,000, 100,000 and 120,000 pounds, designed to utilize king-size refrigerator cars in the Southwest;

—Adjustments on chemicals in volumes of 50,000, 100,000 and 180,000 net tons annually from the Louisiana and Texas Gulf areas to Eastern and Southern destinations, designed to move chemicals in large size tank cars in competition with private tankers;

—Reduced scales of rates on anhydrous ammonia, in large tank cars subject to minimum weights of 140,000 and 155,000 pounds, to better compete with water and pipeline competition within Southwestern territory and between Southwestern and WTL and SFA territories;

—Rates on dry fertilizers and urea within Southwestern territory subject to minimum weight of 180,000 pounds;

—Extension for another year of trainload rates on barley, oats, rye and wheat from the Twin Cities, also Duluth, Minn., and Superior, Wis., to Buffalo, N.Y.;

—Reduced 100,000-pound rates on newsprint paper from Canadian origins to Official Territory reflecting 85% of the present 40,000-pound rates;

—Reduced rates on dried beans, lentils and peas reflecting 90% of the present 70,000-pound rates;

—Per-car rates subject to minimum weight of 60,000 pounds, also rates in excess of 60,000 pounds on fresh meats and packing house products to North Atlantic ports for export;

—Rates subject to minimum weights of 55,000, 65,000 and 75,000 pounds on fresh meats and packing house products at 79%, 74% and 70%, respectively, of the present 30,000-pound rates;

—Mileage scale rates on barley, grain sorghums, animal or poultry feed or feed ingredients within Eastern Territory, designed to encourage utilization of high-capacity covered hopper cars and to afford poultry, egg and livestock producers lower freight charges on direct shipments. The key feature about this adjustment is that it is an extension of the principle of frill-free rate-making that was initiated in July 1964 on carload movements of corn within Eastern Territory. The level of rates is lower than the railroads could offer if the rate structure were to comprehend the usual transit and other accessorial services that are commonly available with the payment of very nominal (and generally non-compensatory) plus charges.

The railroad industry continues to be alert to competitive thrusts from oil, natural gas and the generation of electricity by nuclear power and endeavors by means of the unit train or trainload rate-making techniques to preserve coal movements. This program of rate-making embraces movements in railroad equipment as well as in equipment owned by receivers of coal.

● **Competitive rates.** The now famous "Ingot Molds" case is presently before the Supreme Court of the United States. First, the ICC found that the reduced rate on ingot molds filed by certain railroads in order to compete for traffic being handled in a joint barge-truck service, impaired the latter's inherent advantage of low cost, determined by comparison of fully-distributed costs. Second, the railroads appealed to a U.S. District Court in Louisville, Ky., and the district court held that Section 15a(3) of the Interstate Commerce Act and the National Transportation Policy required the Commission as a matter of law to permit such a reduction. It further held that the Commission had not sufficiently explained and justified its use of a full-cost standard. Third, the Commission, among others, filed a notice of appeal to the U.S. Supreme Court and filed its Jurisdictional Statement on Nov. 9. The judgment of the Supreme Court is awaited with keen interest.

● **Grain.** The "absolute rate-break rule," which was prescribed by the Commission in 1934 as the mandatory basis for construction of railroad rates on grain shipments through primary

markets, was vacated by order of Sept. 17, 1967. The action followed reconsideration on remand after a court challenge of an earlier order to the same effect in 1965.

● **Section 4.** Two decisions of the Commission holding that certain rail-truck and truck-rail-truck rates come under the long and short-haul provisions of the Interstate Commerce Act were appealed to the courts. Docket No. 34254, involving Plan II and Plan V TOFC rates, was heard on appeal by the U.S. District Court for the Southern district of New York which on April 28 entered its opinion setting aside the order of the Commission. Therefore, the Commission vacated and set aside its decision of April 1, 1966, and discontinued the proceeding. Docket No. 34238, involving a complaint by barge operators that they were discriminated against by the failure of railroads to establish certain ex-barge rates at the same level as divisions received under joint rail-motor rates, is under attack in a suit before the U.S. District Court for the Northern district of Illinois. The Commission by order dated Aug. 4, 1967, took cognizance of the fact that the gravamen of this complaint encompasses a number of the issues which were before the District Court of New York in Docket No. 34254. It, therefore, vacated and set aside its orders in Docket No. 34238 and reopened the proceeding for reconsideration on the present record.

● **Passenger fares.** Effective Dec. 1, 1967, most first class and coach fares of Western railroads were increased 5%. The Illinois Central and the St. Louis-San Francisco similarly increased fares in Southern Territory.

Certain special 30-day-round-trip first class and coach class excursion fares were reestablished by Western railroads effective Sept. 15, 1967, to May 15, 1968, inclusive, on the basis of 140% of the one-way fare. A number of Western lines continue to experiment with the honoring of coach tickets in sleeping and parlor cars on certain trains upon payment of charges for space occupied.

## Employment and compensation

The year 1967 was an especially active one for railroads in the field of labor relations. Employment continued the downward trend which has now extended without interruption for nearly two decades, averaging about 609,500 or 3.4% below the 1966 level. Total wages, reflecting increases in rates of pay effective Jan. 1, 1967, (and some which became effective in the latter part of 1966) amounted to an estimated $4,945 million, or about $66 million more than in 1966. It may be noted that this total wage bill is stated in terms of ICC wage statistics which reflect only wages applicable to 1967 and do not include retroactive increases applicable to service performed in 1966. Total labor costs including approximately $677 million in payroll taxes and health and welfare benefits, but again excluding retroactive increases applicable to 1966, amounted to approximately $5,622 million, an increase of $110 million over 1966.

### Table 9: Employees and Their Compensation—1957-1967

| Year | Average number of employees | Total payroll (thousands) | Average annual earnings per employee | Avge. straight time Hourly rate | Hourly earnings |
|---|---|---|---|---|---|
| 1957 | 986,001 | $5,358,044 | $5,434 | $2.28 | $2.42 |
| 1958 | 840,575 | 4,929,906 | 5,865 | 2.46 | 2.61 |
| 1959 | 815,474 | 4,986,253 | 6,115 | 2.56 | 2.72 |
| 1960 | 780,494 | 4,893,558 | 6,270 | 2.62 | 2.80 |
| 1961 | 717,543 | 4,623,982 | 6,444 | 2.69 | 2.87 |
| 1962 | 700,146 | 4,662,065 | 6,659 | 2.75 | 2.95 |
| 1963 | 680,039 | 4,629,566 | 6,808 | 2.78 | 2.99 |
| 1964 | 665,034 | 4,697,884 | 7,064 | 2.85 | 3.06 |
| 1965 | 639,961 | 4,793,066 | 7,490 | 3.00 | 3.22 |
| 1966 | 630,895 | 4,879,273 | 7,734 | 3.10 | 3.33 |
| 1967 (est.) | 609,500 | 4,945,000 | 8,110 | 3.29 | 3.55 |

The increase in total labor costs despite reduced employment resulted from substantially increased compensation per employee. Annual wages per employee averaged about $8,110, an increase of $376 over 1966, and wage supplements amounted to about $1,110 per employee, up $106 from the previous year. The average straight-time rate of pay was an estimated $3.29 and straight-time hourly earnings (straight-time pay per straight time-hour worked) averaged about $3.55.

Wage supplements referred to above are (1) hospital, medical and surgical benefits for employees and their dependents and life insurance for employees and (2) payroll taxes for retirement, medicare, unemployment and sickness benefits. In 1967 these amounted to about $195 million and $482 million, respectively. Total labor cost per hour actually worked in 1967, including overtime pay, vacation and holiday pay, the effect of mileage pay in train and engine service, and the wage supplements came to about $4.55 per hour actually worked, or 38% more than the straight-time hourly rate.

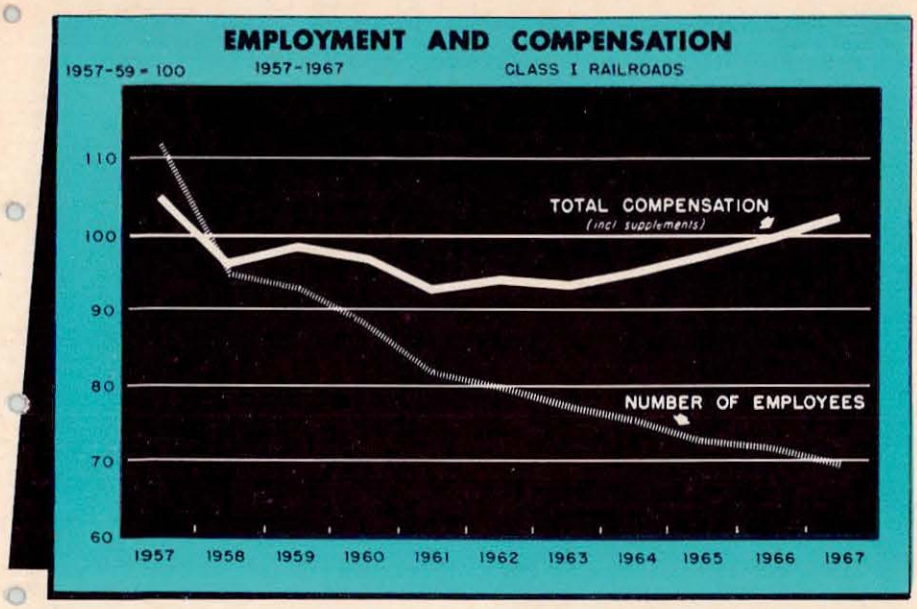
● **The 1966-67 wage cases.** Negotiations between the carriers and one or more of the railroad labor organizations were being conducted throughout the greater part of the year. Late in 1966 agreements had been reached with the Brotherhood of Railroad Trainmen and the Brotherhood of Locomotive Firemen & Enginemen providing increases of 5% in basic rates of pay effective Aug. 12, 1966. The Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees signed on Dec. 15, 1966, for increases of 5% effective Jan. 1, 1967.

On April 10, 1967, agreement was reached with the Switchmen's Union of North America which also provided increases of 5% retroactive to Aug. 12, 1966.

Each of these agreements contained a moratorium clause which provided that no changes in rates of pay could be made prior to Jan. 1, 1968, and that notices for such changes could not be served prior to Sept. 1, 1967.

Agreement with four nonoperating groups, the Brotherhood of Maintenance of Way Employees, the Transportation-Communication Employees' Union, the Brotherhood of Railroad Signalmen, and the Hotel and Restaurant Employees' and Bartenders' International Union was signed on Jan. 13, 1967, providing increases of 5% effective Jan. 1, 1967, and further increases of 2.5% effective Jan. 1, 1968. On Nov. 29, 1967, the same schedule of increases was granted to employees represented by the Railroad Yardmasters of America.

Negotiations with the Brotherhood of Locomotive Engineers culminated in an agreement signed June 22, 1967, increasing basic rates by 6% retroactive to Aug. 12, 1966, and providing an additional increase of 6% effective Jan. 1, 1967, for engineers working




without firemen in freight and yard service.

The Order of Railway Conductors and Brakemen's proposal for wage increases and correction of alleged inequities in rates of pay was heard by Emergency Board No. 171, whose mediation efforts resulted in a settlement providing increases of 6% in basic rates of pay, effective Aug. 12, 1966. The Emergency Board also, acting as a board of arbitration, increased the additives to the basic daily rates of freight conductors in both through and local service effective Aug. 1, 1967. The additive for trains of less than 81 cars was increased by 15 cents while additives for additional brackets of 20 cars per train were increased by 45 cents. Agreement embodying both the settlement and award was signed on Aug. 25, 1967.

Agreements covering the four nonoperating groups, the Yardmasters, the Engineers, and the Conductors organizations, included moratorium provisions running to July 1, 1968, as to increases and to March 1, 1968, as to notices.

● **The shopcraft strike.** A dispute relating to wage increase proposals of shopcraft employees represented by the International Association of Machinists and Aerospace Workers; the International Brotherhood of Boilermakers, Iron Shipbuilders, Blacksmiths, Forgers and Helpers; the Sheet Metal Workers' International Association; the Brotherhood of Railway Carmen of America; the International Brotherhood of Electrical Workers; and the International Brotherhood of Firemen and Oilers was referred to Emergency Board No. 169. The Board recommended an increase of 5% but stated that it regarded the general wage question to be subordinate to the issue of wage differentials between skilled and unskilled shopcraft employees. It recommended that the parties negotiate in order to determine the amount of money to be placed in escrow by the railroads as a "down payment" to establish acceptable skill differentials based upon a job evaluation study to be conducted in cooperation with the Secretary of Labor. The carriers accepted the recommendations of the Board but the unions did not.

When agreement appeared impossible prior to an April 13 strike date, Congress passed Public Law 90-10 on April 11 restraining the strike until May 3, 1967. On April 12 President Johnson appointed a Special Mediation Panel which sought to achieve settlement of the dispute. When its mediatory efforts failed, the Panel, on April 22, proposed as a basis for settlement a general wage rate increase of 6% effective Jan. 1, 1967, and three additional increases of 5 cents per hour for journeymen and mechanics to be made effective April 1, 1967, Oct. 1, 1967, and April 1, 1968. This proposal was not accepted.

Congress then enacted and the President signed, on May 2, Public Law 90-13 extending restraint against a strike until June 19, 1967. On May 4 the President recommended special legislation to resolve the dispute. Differences in bills subsequently passed by the Senate and the House of Representatives resulted in joint Congressional conference, during which the period of restraint specified in Public Law 90-13 expired. However, the unions agreed that for a reasonable period of time no strike action would be taken.

On July 15 the unions withdrew their no-strike commitment and a strike began on July 16-17 on most Class I railroads.

On July 17 both Houses of Congress enacted Public Law 90-54 extending restraint against a strike to the ninety-first day following enactment and creating a Special Board to assist the parties and to conduct intensive mediation. The Special Board was empowered, in the absence of agreement, to make a final determination.

When no agreement had been reached, the Special Board, on Sept. 15, issued its determination which became effective Oct. 16, 1967, as follows:

(1) General wage increases of 6% effective Jan. 1, 1967, and 5% effective July 1, 1968.

(2) Four additional wage rate increases of 5 cents per hour each for journeymen and mechanics' classifications to become effective April 1 and Oct. 1, 1967, and April 1 and Oct. 1, 1968.

The determination further provided that the rates of pay established would remain in effect through Dec. 31, 1968.

The Board stated that fundamental facts relating to the skill differential-wage inequity issue were not available. It recommended that a study be undertaken by the Secretary of Labor in consultation with the parties to be completed as promptly as possible but no later than Sept. 1, 1968.

● **Vacations.** The 1966-67 agreements covering essentially all railroad employees reduced the requirement for a 3-week vacation from 15 years to 10 years of service.

● **Travel allowances.** An issue between the carriers and five nonoperating unions representing clerks, maintenance of way employees, telegraphers, signalmen and dining car employees relating to travel time and expense for employees required to work away from their home stations was submitted to Arbitration Board No. 298. The Board rendered its award on Sept. 30, effective Oct. 15, 1967, providing allowances where lodging and meals are not furnished by the railroad, and pay for travel outside of regularly assigned hours.

● **Health and welfare.** The monthly premium per employee paid by the carriers to provide existing health and welfare benefits was increased from $23.00 to $27.90 on April 1, 1967, for conductors, trainmen and switchmen, and on Sept. 1, 1967, for engineers and firemen. Life insurance of $2,000 was granted to employees retiring after those dates.

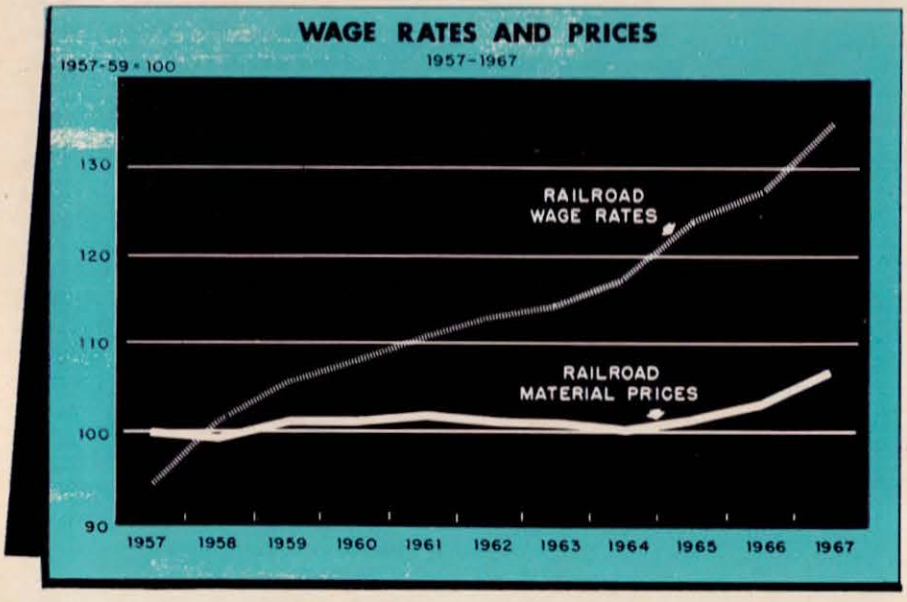
The several national group policy contracts under which health and welfare benefits are provided for railroad employees are subject to termination as of Feb. 29, 1968. The carriers, by notice of Nov. 1, 1967, proposed that all existing health and welfare plans be consolidated into one plan administered by a single insurer, with uni-

form costs, uniform benefits, and more economical and efficient administration. Negotiation of this proposal was concluded early in January 1968. Additional cost of the new contract will approximate $2.60 per employee per month.

● **Other new proposals.** Proposals by nonoperating unions representing clerks, maintenance of way employees, signalmen, telegraphers and dining car employees seeking to expand and improve protective benefits established by the "job stabilization" agreement of Feb. 7, 1965, were served early in 1967. National negotiations were being conducted during the latter part of the year.

Organizations representing clerks, trainmen, firemen and switchmen filed notices for increases in rates of pay to become effective Jan. 1, 1968, ranging from 7½% to 15% and also proposing additional holidays, improved vacations and increased health and welfare benefits and life insurance.

On Dec. 28, announcement was made of an agreement between the carriers and the Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees granting wage increases of 2.5% effective Jan. 1, 1968, 3.5% on July 1, 1968, 2% on Jan. 1, 1969, and 3% on July 1, 1969. Rates of pay thus established will not be changed prior to Jan. 1, 1970. In addition, the requirement for a two-week vacation was reduced from three years of service to two, and the carriers also agreed to set aside five cents per hour to establish a classification evaluation fund not later than July 1, 1968. The fund will be administered jointly by the parties on the individual properties in order to make monetary adjustments based upon job content.




## Table 10: Index of Wage Rates and Material Prices—1957-1967

(Average 1957-1959=100)

| Year | Wage index | Price Index Other Fuel | Other material | Total material | Index of wage rates and prices |
|---|---|---|---|---|---|
| 1957 | 93.8 | 104.5 | 98.2 | 99.9 | 95.3 |
| 1958 | 101.1 | 96.6 | 99.9 | 99.0 | 100.6 |
| 1959 | 105.1 | 98.8 | 102.0 | 101.2 | 104.1 |
| 1960 | 107.8 | 94.4 | 103.6 | 101.2 | 106.1 |
| 1961 | 110.4 | 96.3 | 103.7 | 101.7 | 108.2 |
| 1962 | 112.9 | 95.5 | 103.1 | 101.0 | 110.2 |
| 1963 | 114.1 | 95.0 | 102.8 | 100.7 | 111.1 |
| 1964 | 117.0 | 89.5 | 103.7 | 100.0 | 113.1 |
| 1965 | 123.2 | 91.7 | 104.5 | 101.1 | 118.2 |
| 1966 | 127.3 | 93.2 | 106.3 | 102.8 | 121.7 |
| 1966 (prel.) | 135.1 | 96.0 | 110.1 | 106.4 | 127.8 |

## Table 11: Prices, Freight Rates and Revenue Averages—1957-67

| Year | Consumer price index (1957-59=100) | ICC freight rate index (1950=100) | Revenue per ton-mile (cents) | Revenue per passenger-mile (cents) |
|---|---|---|---|---|
| 1957 | 98.0 | 118 | 1.445 | 2.839 |
| 1958 | 100.7 | 121 | 1.463 | 2.900 |
| 1959 | 101.5 | 118 | 1.445 | 2.951 |
| 1960 | 103.1 | 116 | 1.403 | 3.011 |
| 1961 | 104.2 | 114 | 1.374 | 3.079 |
| 1962 | 105.4 | 112 | 1.348 | 3.110 |
| 1963 | 106.7 | 109 | 1.310 | 3.179 |
| 1964 | 108.1 | 107 | 1.284 | 3.168 |
| 1965 | 109.9 | 105*p* | 1.266 | 3.182 |
| 1966 | 113.1 | n.a. | 1.257 | 3.182 |
| 1967 | 117.8*a* | n.a. | 1.267*e* | 3.180*e* |

*p*—Preliminary *a*—November 1967. *e*—Estimated.

## Wage rates and prices

Because of substantial wage increases to railroad workers and the upward movement of prices generally, the index of wage rates and material prices as compiled by AAR's Economics and Finance Department (formerly Bureau of Railway Economics) increased by 5% in 1967 over 1966. The average for the year was 127.8%, indicating a level 27.8% above that of the 1957-59 base period.

The straight-time hourly rate of railroad employees increased for the twenty-second consecutive year. The estimated average increase of 19 cents per hour, or 6.1%, represented the greatest relative increase since 1958, and one of the largest absolute increases in railroad history. The index of wage rates has increased 44.0% in ten years, reflecting an increase of $1.01 in the straight-time rate to $3.29 per hour in 1967.

Fuel prices (primarily diesel oil) trended generally downward between 1957 and 1964, the index declining from an alltime peak of 104.5 to 89.5, its lowest level since 1950. Since 1964 the fuel index has risen 7.3%, although 1967 fuel prices were still 8.1% below those of 1957.

Railroad material and supply prices excluding fuel have increased 12.1% since 1957, an average rate of 1.1% per year, but were up 3.6% in one year, 1967 over 1966. The index of railroad material and supply prices including fuel, which remained relatively stable in the period 1957 through 1965, turned upward in 1966 and increased sharply, by 3.5%, in 1967.

The indexes for material, supplies

and fuel shown in Table 10 are computed on a "chargeout" basis which allows for a time lag between purchase and use. The "spot" price index, reflecting price at time of purchase, advanced in each quarter of 1967, including an increase of ¾ of one percent in the third quarter, indicating further increases in railroad material and supply prices may be in prospect for 1968.

• **Revenue averages.** Although the railroads found it necessary to increase most freight rates in 1967 in order to combat sharply rising wage rates and material prices, the year's average freight charge per ton-mile, estimated at 1.267 cents, was up less than 1% from the 1966 level. The freight rate increases, averaging slightly over 3% and in effect for a little more than one-third of the year, were partially offset by individual rate reductions designed (as were the increases) to maximize revenues and earnings.

Since the increase in freight charges averaged less than 1% while the Consumer Price Index rose nearly 3%, 1967 over 1966, the cost of railroad transportation would appear to have become an even smaller part of the total cost of living in the United States. As shown by Table 11, 1967's average revenue per ton-mile of 1.267 cents was still 13% below a peak of 1.463 cents reached in 1958, and the decline in this average was paralleled by the ICC's declining index of carload freight rates.

During the same period the Consumer Price Index rose by more than 17%, while the AAR index of railroad material prices and wage rates, shown in Table 10, increased by 27%.

Revenue per passenger-mile showed little change, averaging about 3.18 cents for the fifth successive year. During this period an increase in the average per-mile commutation fare from 3.17 to 3.30 cents has been offset in the over-all weighted average fare by a reduction in the volume of first class travel and a decline in first class revenue from 4.00 to 3.75 cents per passenger-mile.

## Equipment trends

Modernization was the keynote of equipment trends in 1967. While the number of freight cars and locomotives in service was about the same at year's end as at its beginning, more than 5% of the cars and 4% of the locomotives were replaced during the year by new or rebuilt bigger and better units. In each case the capability of the fleet was significantly increased.

As shown by Table 12, the total number of freight cars as of Dec. 31, 1967, was an estimated 1,823,000, ap-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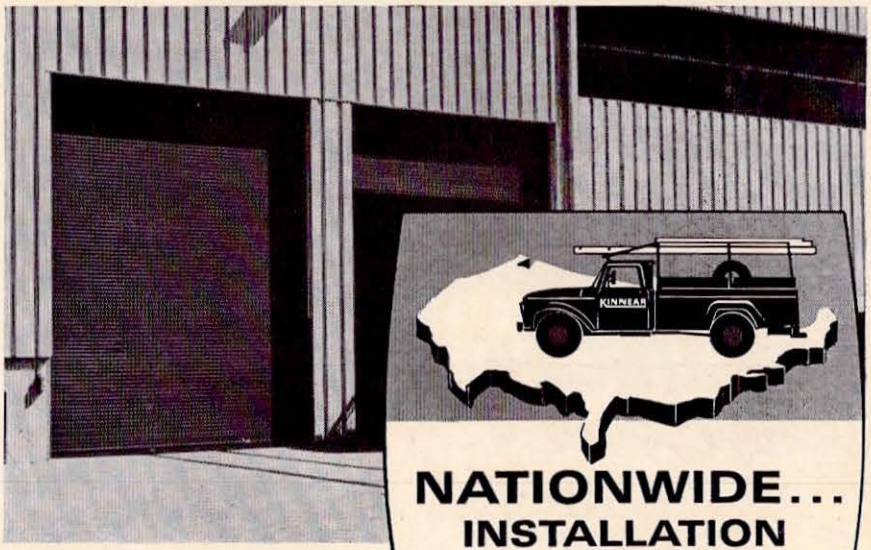


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## REVIEW OF 1967 RAILWAY OPERATIONS

proximately equal to the 1,826,184 cars reported one year earlier. These counts include not only Class I railroads but also cars of Class II roads, switching and terminal companies and the so-called private car lines. The private fleet, a large part of which actually represents railroad-controlled companies such as TrailerTrain, Pacific Fruit Express Company, Fruit Growers Express Company, and others, increased by some 10,000 cars in 1967 and now accounts for 17% of the total fleet, up from 13% ten years ago.

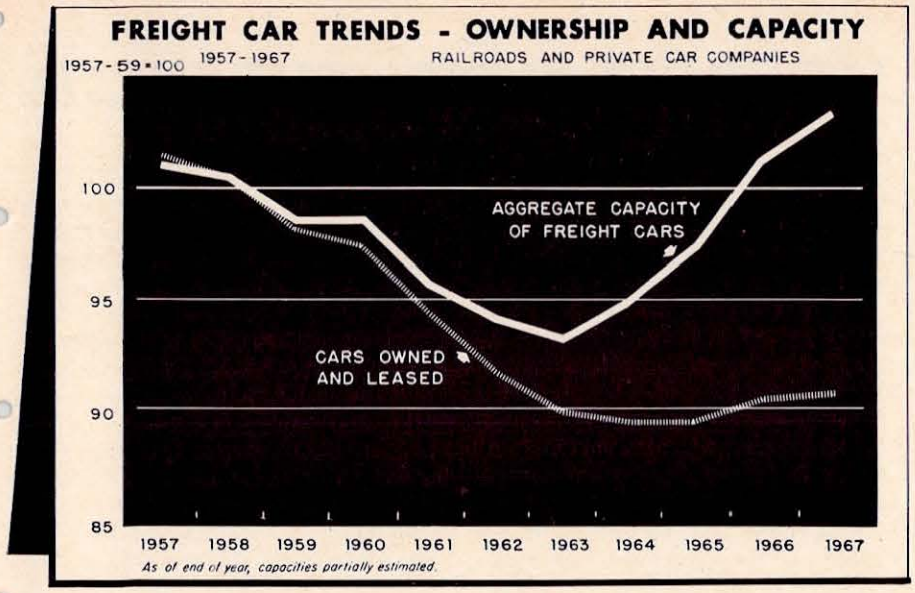
The number of covered hopper, flat, tank and miscellaneous cars increased in 1967, while the number of box, open-top hopper, stock and refrigerator cars declined. The use of large covered hopper cars to transport grain, animal feeds, starches, flours, cement and other dry bulk commodities continues to increase, replacing the general service box car for such traffic.

Car shortages were fewer during the year due to a decline in over-all carloadings and higher capacity of the fleet. The average capacity of freight cars in use increased in 1967 to an estimated 62.5 tons per car, up 1.1 tons over the preceding year and 8 tons in ten years. The average capacity of cars installed in 1967 was 81 tons, 30% more than the average for cars in service and nearly 50% greater than the average for cars retired. Aggregate carrying capacity of the freight car fleet at year end was 113.9 million tons, up from 112 million tons ten years ago.

Investigations by the Interstate Commerce Commission of railroad freight car ownership and utilization in Ex Parte 241 and 252 are reported elsewhere in this Review.

The number of passenger-train cars continued to decline during the year, as fleets of both passenger-carrying cars and head-end cars (baggage, mail and express) were reduced in line with traffic trends.

New and rebuilt equipment installed during 1967 is shown in Table 13. Installation of 99,000 freight cars—down only 7,000 from 1966's near-record total despite the six-month suspension of the 7% investment tax credit—was attributable to an exceptionally large backlog of orders on builder's books at the time of the tax credit's suspension. Locomotive installations continued at a high level, about 1,100 units, also reflecting a considerable backlog of 1966 orders. Approximately 75% of locomotives installed were in the 3,000-3,600 horsepower range, at least double the power of


FREIGHT CAR TRENDS - OWNERSHIP AND CAPACITY
1957-59=100 1957-1967
RAILROADS AND PRIVATE CAR COMPANIES
100
95
90
85
AGGREGATE CAPACITY OF FREIGHT CARS
CARS OWNED AND LEASED
1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967
As of end of year, capacities partially estimated.

units replaced. New passenger cars numbered about 20, all for suburban service. Additional new suburban cars were on order at year end.

New and rebuilt freight cars on order at the end of the year were about one-half of the 66,000 on order at the end of 1966, as many railroads awaited development of more favorable conditions before launching 1968 equipment programs.

Aside from legislation dealing with a wage dispute involving railroad shopcraft employees, discussed elsewhere in this Review, few measures relating to transportation were enacted in the first session of the 90th Congress. Many bills of interest to the railroads were introduced.

● **User charges.** President Johnson, in his Budget Message, requested new and additional transportation user charges "to collect from the users a greater share of the Government's cost of providing its services," stating that the recommended charges "will also result in more equitable treatment of the various competing modes of transportation, and should encourage more careful scrutiny of new and continuing public investment programs in transportation."

In his Economic Message to Congress, the President reiterated the need for "a fair system of charges for users of highways, aviation facilities and inland waterways, to improve efficiency in the use of transportation resources, and to reimburse the Federal Government for a part of its expenditures on facilities which directly benefit those who use them."

On Aug. 31, the Department of Transportation submitted to the Congress drafts of three bills to implement President Johnson's recommendations. The proposals would apply a 2-cent-a-gallon tax to all fuels used on the inland waterways, increase the tax on diesel fuel for highway vehicles from 4 cents to 6 cents a gallon, apply a graduated tax on heavy trucks and buses ranging from $3.50 to $8 per 1,000 pounds, apply a tax of 4 cents a gallon on all fuels used by noncommercial aviation and a 2% tax on air freight bills. The existing 5% tax on airline tickets would continue, but the 2 cents a gallon tax on commercial aviation gasoline would be repealed. It was observed that the proposed charges would "recover a very small fraction of the operating and maintenance costs of the waterways" (D.O.T.), "move the contributions by operators of heavy trucks closer to a fair share of highway costs" (Bureau of the Budget) and "help to cover commercial aviation's share of the cost of the Federal airways system" (D.O.T.).

● **Investment tax credit.** Public Law 90-26, signed by the President on June 13, 1967, restored the 7% investment tax credit (and accelerated depreciation on certain property not subject to the credit) as to property ordered after March 9, 1967, or acquired after May 23, 1967. In addition, an increase in the maximum limitation on the credit to $25,000 plus 50% of tax liability in excess of $25,000 was made effective March 10, 1967. Under terms of the bill which suspended the investment credit in October 1966, the increase in the limitation to 50%, from 25%, would have become effective Jan. 1, 1968, when suspension of the credit provision was scheduled to expire. Another provision of the suspension bill extended the period for carrying forward unused credits from five years to seven. These liberalizations of the investment credit are of especial importance to taxpaying railroads because of the industry's characteristically high ratio of capital expenditures to earnings.

● **Insurance.** H.R. 14563, introduced on Dec. 15 by Chairman Staggers of the House Committee on Interstate and

## Table 12: Inventory of Equipment—1957-1967

| December 31 | Freight cars* | Passenger cars (incl. Pullman) | Head-end passenger-train cars | Diesel locomotive units | Other locomotive units |
|---|---|---|---|---|---|
| 1957 | 2,055,274 | 20,105 | 14,114 | 27,320 | 2,956 |
| 1958 | 2,032,676 | 18,577 | 13,767 | 27,715 | 1,872 |
| 1959 | 1,982,110 | 17,459 | 13,208 | 28,238 | 1,288 |
| 1960 | 1,968,771 | 16,181 | 12,818 | 28,369 | 774 |
| 1961 | 1,907,723 | 15,004 | 12,345 | 28,240 | 614 |
| 1962 | 1,852,992 | 14,240 | 11,788 | 28,170 | 505 |
| 1963 | 1,817,026 | 13,732 | 11,369 | 27,969 | 478 |
| 1964 | 1,802,582 | 12,507 | 11,154 | 27,879 | 433 |
| 1965 | 1,803,227 | 11,371 | 10,502 | 27,433 | 399 |
| 1966 | 1,826,184 | 10,665 | 9,932 | 27,516 | 378 |
| 1967 (est.) | 1,823,000 | 10,000 | 9,200 | 27,460 | 350 |

*All cars, railroad and private.

## Table 13: New Equipment Installed—1957-1967

| Year | Freight cars (see note) | Passenger-train cars | Diesel-electric locomotives | Other locomotives |
|---|---|---|---|---|
| 1957 | 102,175 | 191 | 1,312 | 4 |
| 1958 | 46,835 | 148 | 430 | 4 |
| 1959 | 46,023 | 74 | 835 | 7 |
| 1960 | 58,322 | 239 | 440 | 13 |
| 1961 | 34,241 | 204 | 242 | 32 |
| 1962 | 39,822 | 285 | 754 | 28 |
| 1963 | 48,255 | 143 | 806 | 13 |
| 1964 | 83,266 | 408 | 1,116 | — |
| 1965 | 89,653 | 577 | 1,440 | — |
| 1966 | 106,058 | 103 | 1,394 | — |
| 1967 (est.) | 99,000 | 20 | 1,100 | — |

Note: Cars rebuilt by Class I railroads are counted as new. Freight car installations include cars of all railroads and private car lines.

# THE D.O.T.'s BUDGET IS BIG—BUT MOSTLY

Foreign Commerce, would implement improvements in railroad retirement and unemployment-sickness benefit laws proposed jointly by the railroads and their employees. The amendments would increase annuities to retired employees and other beneficiaries by approximately 110% of the increase provided under comparable conditions by the 1967 Social Security amendments, would increase the maximum daily benefit rate for unemployment or sickness from $10.20 to $12.70, and would extend the period of sickness benefits for employees now eligible for extended unemployment benefits, except employees over 65 entitled to retirement annuities. Among other provisions affecting unemployment and sickness insurance, the bill would increase qualifying base-year earnings from $750 to $1,000, disqualify for a prescribed period employees receiving separation allowances, and remove the special maternity benefits.

Payroll taxes on employers and employees will be increased in the years ahead, primarily as a result of an increase in maximum taxable compensation under Social Security from $6,600 to $7,800 a year which results in an automatic corresponding increase in the maximum taxable monthly compensation for railroad retirement from $550 to $650, effective Jan. 1, 1968. The tax rate for retirement and medicare was also increased effective Jan. 1, 1968, to 8.9% from the 1967 rate of 8.65%. While this increase was already scheduled in existing law, the 1967 amendments reduced the scheduled 1968 rate for retirement from 8.4% to 8.3% and raised the medicare rate from 0.5% to 0.6%. Rates in future years are to increase further. The maximum tax base ($400 per month) and tax rate (4%) for unemployment and sickness remain unchanged. Costs of this program are paid for entirely by employers.

- **D. O. T. appropriations.** An appropriation bill, P.L. 90-112, signed Oct. 23, provided $1.6 billion for the new Department of Transportation for fiscal year 1968. Included were $142 million for development of a supersonic transport aircraft, $54 million for improved facilities and equipment for the federal airways system, $27 million for research and development to improve and modernize aviation facilities, $70 million for grants-in-aid for airports, and $11,750,000 for high-speed ground transportation research and development. The last-named item included $4.5 million for the Boston-to-New York demonstration project, $650,000 for the New-York-to-Washington project, and $1.5 million for research on tracked air cushion vehicles. Another $2.5 million was appropriated for Northeast Corridor project research. A proposed $3.5 million for an auto-on-train demonstration project between Washington and Jacksonville, Fla., was eliminated entirely from the bill.

- **Public works affecting navigation.** Public Law 90-147 appropriated $1,298,129,000 for the Civil Works Program of the Corps of Engineers, including $155,029,000 for continuing construction of the Arkansas River navigation project, $67,000,000 for seven replacement locks and dams on the Ohio River, $77,000,000 for locks and dams on the Lower Snake River, and $750,000 for planning of a Grand River reservoir for other then navigation purposes. An appropriation of $50,000 was included to conduct a reconnaisance study of a proposed cross-Wabash Valley waterway to connect the Ohio River with either Lake Erie or Lake Michigan. The bill also appropriated $75,000 for restudy of navigation features of a central Oklahoma project.

- **St. Lawrence Seaway.** Two bills were introduced concerning the St. Lawrence Seaway. S. 1455 would provide for conversion of the corporation's revenue bonds to capital stock with a cumulative dividend of 3.61% per year and provide that tolls need not cover Seaway maintenance costs. The other bill, S. 2131, provides for a direct appropriation of $13.1 million for repairing faults in the Eisenhower and Snell locks. Hearings were held, but no action was taken.

Hearings were held in 1967 on other bills affecting railroads, including the following:

- **Discriminatory taxes.** S. 927 (H.R. 6547 and others) would make it unlawful to assess common carrier transportation property on a higher basis or tax such property at a higher rate than assessments or rates applicable to other property.

- **Valuation of property.** S. 757 (H.R. 6535) would amend Section 19(a) of the Interstate Commerce Act to eliminate certain carrier valuation requirements, hopefully leading to a reduction in unproductive paper work.

- **Bulk commodity exemption.** S. 1314 (H.R. 7610 and others) would permit barge operators to mingle regulated commodities and non-regulated dry bulk commodities in a single tow, while preserving exemption for the non-regulated cargoes. The bill would liberalize Section 303(b) of the Interstate Commerce Act which presently allows a barge operator to haul not more than three exempt dry bulk commodities—such as coal, grain, gravel or sand—in a single tow without being subject to regulation.

Railroads took the position they would not oppose the liberalization, provided they are granted a similar exemption.

- **Agricultural cooperatives.** S. 752 (H.R. 6530) would amend Section 203(b)(5) of the Interstate Commerce Act to provide that for-hire transportation by agricultural cooperatives for non-members is exempt only when the commodities transported consist of farm products, farm supplies, or other farm-related traffic, thereby helping to protect common carriers from abuses of the agricultural exemption.

- **Section 22.** S. 1174 would limit the transportation of government property or passengers free or at reduced rates to time of war or national emergency except as to bulk or agricultural commodities (S. 754 and 6534).

- **Through routes and joint rates.** S. 751 (S. 1768 and H.R. 6533) would authorize the Interstate Commerce Commission, after investigation and hearing, to require the establishment of through routes and joint rates between motor carriers of property, and between such carriers and common carriers by rail, express and water.

- **State excess-crew laws.** Two Arkansas full-crew laws, which required at least six crewmen on most freight trains, were declared unconstitutional by a three-judge Federal District court on Oct. 2, 1967. The Arkansas full-crew law concerning passenger-trains was not involved in the litigation.

An Ohio judge rejected a plea by 15 railroads to rule that the state's rail full-crew law written in 1902 and revised last in 1913, is inapplicable to diesel operations.

On Sept. 7, 1967, a Circuit court in Dane County, Wis., ruled that that part of the state's full-crew law requiring firemen in switch engines was unconstitutional.

## Other matters

Other bills of interest to railroads on which no action was taken in the first session of the 90th Congress include: H.P. 11496 and others to make

# NON-RAILROAD

tax loss carryovers of small railroads available to larger merger partners; H.R. 7277 to allow the Post Office to use regulated motor carriers and forwarders to the same extent it now uses railroads to transport mail; various bills to amend procedures for governing discontinuance of passenger trains under Section 13(a); 923 (H. R. 4760 and 23 others) to amend the Hours of Service Act by reducing maximum working hours; H.R. 13716 (and H.R. 13792) to provide for amortization of reorganization expenses; H.R. 7629 (and 9 others) to amend the Mineral Leasing Act with respect to railroads' leasing of coal lands; H.R. 2885 (S. 723) to provide regulations regarding use of reflectors or luminous material on freight cars; S. 887 (and H.R. 12175) to prevent federal regulatory agencies from directly or indirectly denying regulated industries the right to exercise business judgment in accounting for depreciation; S. 272 (and H.R. 2121) to alleviate freight car shortages by permitting faster methods of sampling grain in cars; S. 2774 to exempt rail carriers from minimum rate regulation in the transportation of bulk commodities; and S. 2658 (and H.R. 14474) to amend Section 127 of Title 23 of the United States Code relating to vehicle weight and width limitations on the Interstate System in order to make certain increases in such limitations.

## Administrative proceedings

Activities of the Interstate Commerce Commission, Department of Transportation and other governmental bodies of particular interest to railroads in 1967 were the following:

● **Railroad unifications.** During the year 1967 two mergers and one control application involving Class I railroads were approved by the ICC and one merger and one control application previously approved were made effective. One new merger application was filed.

Merger of the Seaboard Air Line and Atlantic Coast Line railroads on July 1 formed the new Seaboard Coast Line Railroad. The Interstate Commerce Commission had approved the merger in December 1963, but a series of court tests followed until, on April 10, 1967, the Supreme Court upheld the Commission's decision. The system operates 9,700 route-miles in six southeastern states. Under a further proposal filed with the ICC in December, the Piedmont & Northern's 150 miles in the Carolinas would be added to the SCL.

Control of the Chicago & Eastern Illinois by the Missouri Pacific became effective May 12, 1967, following affirmation by the Supreme Court of a Federal district court's decision supporting the ICC's decision of February 1965.

Upon reconsideration the Commission on Nov. 30 approved the proposed merger of the Northern Pacific, the Great Northern and the Chicago, Burlington & Quincy, including the lease of the Spokane, Portland & Seattle. The decision, reversing an ICC denial of April 27, 1966, will create a 26,500-mile rail system, the nation's largest in track mileage.

Control of the Western Maryland by the Chesapeake & Ohio-Baltimore & Ohio was approved by the ICC on Feb. 21, 1967, and made effective on March 6. Attrition conditions for protection of employees were provided by the Commission for the first time in a railroad consolidation.

The ICC unanimously approved, April 27, merger of the Chicago & North Western and the Chicago Great Western. After a petition to reconsider by the Soo Line and others, the ICC reaffirmed and on Oct. 27 ruled that the merger could go into effect on Nov. 21. Consummation of the merger is being delayed by court action.

Joint ownership of the Alton & Southern by the Missouri Pacific, the St. Louis Southwestern and the Chicago & North Western was recommended April 4 by an ICC examiner.

A three-judge Federal district court further stayed consummation of the Pennsylvania and New York Central merger approved by ICC in 1966, and a related ICC ruling regarding the inclusion of the Boston and Maine, the Erie Lackawanna and the Delaware & Hudson in the Norfolk & Western under a provision of the previously-effected Nickel Plate-N&W merger.

Application for merger of the Missouri Pacific and the Texas & Pacific was withdrawn on April 19. Illinois Central's bid to acquire the Louisville & Nashville, filed in 1960, was dismissed by the ICC on May 23.

The following additional merger and control proposals involving Class I railroads were in various stages of consideration before the ICC at year end: (1) competing proposals by several railroads to merge, control, or purchase the Chicago, Rock Island & Pacific; (2) control of the Atchison, Topeka & Santa Fe by the Missouri Pacific and the Mississippi River Fuel Corp.; (3) merger of the Chicago & North Western and the Chicago, Milwaukee, St. Paul & Pacific; and (4) merger of the Norfolk & Western and the Chesapeake & Ohio and the proposed acquisition through a new subsidiary of the Erie Lackawanna, Delaware & Hudson, Boston & Maine, Reading and Central Railroad of New Jersey.

In a further order in the case involving control of the Central of Georgia by the Southern, initially approved Nov. 7, 1962, the Commission set forth new conditions ordering Southern to meet the New Orleans employee-protective conditions, including sections of the Washington agreement.

● **Railroad bankruptcy.** On March 22, 1967, the Central Railroad of New Jersey filed a reorganization petition under Section 77 of the Bankruptcy Act. Previously, the most recent such action taken by a Class I railroad was on July 7, 1961, by the New York, New Haven & Hartford. The latter at year end 1967 was encountering difficulty in generating sufficient cash to meet current requirements and was receiving government aids to sustain operations pending consummation of the Pennsylvania-New York Central merger.

● **Freight car hire.** Tank car mileage allowances and rules governing cars furnished by shippers were found not shown to be just and reasonable in a February 1967 decision of the ICC in I&S Docket 8135 and Docket 34480. However, the Commission applauded the objectives of the railroads in establishing a system of multi-level rates, and allowed the system to remain in effect pending establishment of new schedules not inconsistent with views expressed in the report.

A proposed new schedule of six multilevel rates, ranging from 7.75 cents to 17.6 cents per loaded tank car-mile, based on the shortest distance over the routes of individual railroad systems, was submitted to the railroads for approval at year end. The proposal includes a revised equalization rule aimed at reducing uneconomic empty hauls.

In Ex Parte 252 the Commission decided on Oct. 3, 1967, that information available did not meet statutory standards required to impose an "incentive" per diem charge for the intended purpose of encouraging quicker return of cars to their owners. However, in December the ICC announced it will conduct a further investigation in 1968 to determine whether the nation has enough freight cars and whether incentive per diem charges would encourage better utilization.

In other freight car per diem proceedings, Dockets 31358, 33145 and 34405, in which an examiner's proposed report was issued in late December

# PER DIEM STILL UNDER DISCUSSION

1965, there were no noteworthy developments in 1967.

A railroad task force continued its comprehensive study of all phases of freight car per diem matters.

● **Car service.** The ICC conducted extended hearings in Ex Parte 241, *Investigation of Adequacy of Railroad Freight Car Ownership, Car Utilization, Distribution, Rules and Practices.* The AAR in its brief filed on Nov. 13 argued that (1) the Commission must not prescribe a car ownership formula; (2) rules and regulations proposed by ICC staff members are unreasonable and unworkable; (3) no code of car service rules should be made mandatory; and (4) the railroad industry is working to bring about greater and more efficient utilization of the freight car fleet through the most modern concepts of computer - communications technology.

In Docket 34371, Sub. 2, the Commission heard arguments as to whether it may consider awarding compensation to a railroad for moving empty freight cars as required by ICC distribution orders issued under its emergency car service powers.

In I&S Docket 8363, a proposed $25 charge against consignees who fail to clean out freight cars, scheduled to take effect June 1, 1967, was suspended by the ICC pending investigation, and the effective date was later postponed to March 1, 1968. The railroads urged that the proposed charge would result in an improvement of car supply through greater utilization of available cars with mutual benefits for both shippers and railroads. Hearings concluded on Nov. 3. A proposal by the examiner to dictate a recommended report at the close of the hearings was withdrawn after respondent railroads protested against undue expedition of the proceeding.

● **Department of Transportation.** A newly created Department of Transportation officially began operations on April 1, 1967, on which date it assumed responsibility, among other things, for the Federal aid highway program, national highway and traffic safety programs, aviation safety programs, air traffic control systems, water navigation and safety under the U.S. Coast Guard, and railroad safety regulations. Under the law which established it, the new department is called upon to coordinate the government's transportation programs, help carriers develop coordinated transportation services, encourage cooperation of interested parties, stimulate technological advances, and provide leadership in solving transportation problems.

● **Grade crossings.** The Secretary of Transportation, on Aug. 8, 1967, ordered the Federal Railroad Administration and the Federal Highway Administration to begin an immediate program to reduce rail-highway grade crossing accidents. Subsequently, the AAR announced plans for an industry committee to work with D.O.T. in grade crossing safety research, and called for an "all-out assault" on the problem, including allocation of more federal funds for grade crossing separation and protection.

● **Locomotive inspection.** New rules governing the inspection and testing of non-steam locomotives became effective Oct. 15, 1967, following affirmation by the Federal Railroad Administration of an earlier ICC order. Revisions sought by the Association of American Railroads in this proceeding (Ex Parte 243) were substantially approved.

● **Power brake law.** The ICC in an order served March 2, 1967, in Docket No. 32406, reversed its prior interpretation of the Power Brake Act in which it had held that no changes in the rules adopted under that 1958 Act could be made unless the changes affirmatively increased railroad safety. The effect of the 1967 reversal is that changes may now be considered even though they do not improve safety, so long as safety is maintained and is not impaired.

● **Intermodal relations.** In its decision of May 29, the U.S. Supreme Court opened piggyback plans to other transportation modes, unholding a 1964 ICC ruling in Ex Parte 230. The ruling requires that trailer-on-flatcar service offered through "open tariff" publications must be made available to competing water and motor carriers. The Supreme Court, reversing an earlier ruling by a three-judge U.S. District Court that the railroads could limit the service to particular customers, held that "all piggy-back service is, by its essential nature, bimodal."

Railroads, motor carriers and steamship lines reached tentative agreement on rules for governing the interchange of equipment, including trailers, containers, bogies and chassis. Among other things, the rules fix responsibility for maintenance, set standards of acceptability for interchange, and provide for prompt return of equipment to owners.

● **Costs and pricing.** Exceptions and replies were filed in the ICC's study of rules governing cost evidence, Docket No. 34013, and at year end the matter was awaiting oral argument. The railroad industry supported the examiner's finding that certain cost formulas should not be given *prima facie* standing before the Commission. Exception was taken by the railroads to the examiner's conclusion that so-called fully-distributed or fully-allocated costs are relevant in minimum rate determinations as between competing modes.

In a statement particularly significant for its application to the railroads and their objectives, the President's Council of Economic Advisers in its annual report said, with respect to regulatory policies:

"Some major sectors of the economy are subject to extensive Government regulation. . . . . These regulated industries are vitally important; they not only originate about one-fifth of the national income, but they include the very sinews of a modern economy—electric power, communications, and transportation. The markets and technologies of these industries are subject to the forces of persistent change, which requires that existing policies be continually reexamined.

"The broad issues are often the same as for the non-regulated sectors. Regulation, like other Government policies, must not be diverted to protecting the established positions of particular firms or industries at the expense of economic efficiency. Nor must excessive reliance on uniform prices preclude the use of price differences to achieve the best use of capital intensive technologies. Finally, regulatory policy must not forego the possibilities of introducing competition when technological change makes this economically desirable."

● **Division of revenues.** In the Transcontinental (East-West) divisions case, the Supreme Court, on May 29, overturned a District court ruling which had remanded the case to the Commission on the grounds that it should have determined costs and revenue requirements of individual railroads rather than considering only regional groups of railroads. The 1963 ICC ruling in Docket 31503 which the Supreme Court thus upheld provided a larger share of transcontinental revenues for certain midwestern railroads.

A three-judge Federal court in New Orleans ruled that a March 1965 order of the ICC in Docket No. 29885, the

North-South divisions case, establishing new divisions on through traffic between Official and Southern territories, granted northern railroads preferential freight rates over southern railroads and should be set aside. Notice of appeal to the Supreme Court has been filed by the Commission and others.

● **Proposals for sale of REA.** The U.S. Supreme Court on June 5 blocked the Greyhound Corporation's planned acquisition of 20% of the stock of REA Express, returning the proposal to the ICC for "further proceedings." It was later announced that the two companies had "mutually agreed to terminate the transaction."

Shortly thereafter the REA board of directors expressed its view that exclusive railroad ownership "stands in the way of greater intermodal development." An offer to purchase, made by a company not engaged in transportation, was under consideration at year end.

● **Proposed waterway projects.** The Corps of Engineers was directed by Congress to terminate all planning associated with navigation elements of a Lake Erie-Ohio River canal. However, $750,000 was appropriated to continue planning of a Grand River reservoir solely for purposes of flood control, water supply, water quality control, recreation, and fish and wildlife conservation.

Hearings were conducted by the Corps of Engineers regarding year-round navigation on the Upper Mississippi River and study continued on the economic feasibility of increasing the existing 9-foot channel to 12-foot depth.

Other hearings during the year were concerned with improvement of the Grand (Neosho) River for navigation and other purposes, improvement of the Upper Verdigris River for navigation and other purposes, extension of navigation on the Columbia River from Pasco to Wenatchee, improvement of the intracoastal waterway from St. Marks to Tampa Bay, Fla., and development of navigation on the White River in Missouri and Arkansas.

The Chief of Engineers forwarded his report on the Tennessee-Tombigbee Waterway to the Secretary of the Army, who in turn forwarded the report to Congress in March 1967. The Secretary's accompanying letter to Congress stated that the "project continues to lack that margin of economic safety which typically marks federal investments in water resource development."

The latest report of the International Joint Commission on the improvement of the International Champlain Waterway for commercial navigation was submitted to both the United States and Canada on April 21, 1967. The Commission found that improvement of the existing facility or development of a new facility to connect the St. Lawrence River with the Hudson River for navigation purposes is not economically feasible.

● **St. Lawrence Seaway tolls.** The U.S. State Department announced that there would be no increase in seaway tolls for at least four years, while plans to reimpose tolls on the Welland Canal were announced by the Canadian Seaway Authority. These charges are to be $20 per lockage in 1967, or $160 for full transit, increasing thereafter by $20 per year until fees reach $100 per lockage in 1971. The Canadian share of Seaway toll revenues was increased from 71 to 73% for the stated purpose of more nearly reflecting relative costs.

# Long-range prospects remain very favorable

Two important projects launched in 1967 serve to emphasize the kind of technological and service breakthroughs that will increasingly shape the industry's future for the better. The first—TeleRail Automated Information Network — (TRAIN) — will establish a nationwide computerized freight car tracking system directly linked with advanced information systems on individual railroads so as to privide up-to-date recording of freight car distribution throughout the country. The other innovation — Automatic Car Identification (ACI) — is a system for the automatic trackside scanning and identification of passing freight cars. ACI will instantly feed TRAIN computers with precise input information on car movements.

The course of economic developments and of government fiscal and monetary policies in 1967 does not provide unlimited confidence regarding prospects for the new year. With the economic imbalances and cross currents now so much in evidence, annual forecasts for 1968 are more surrounded than usual with reservations.

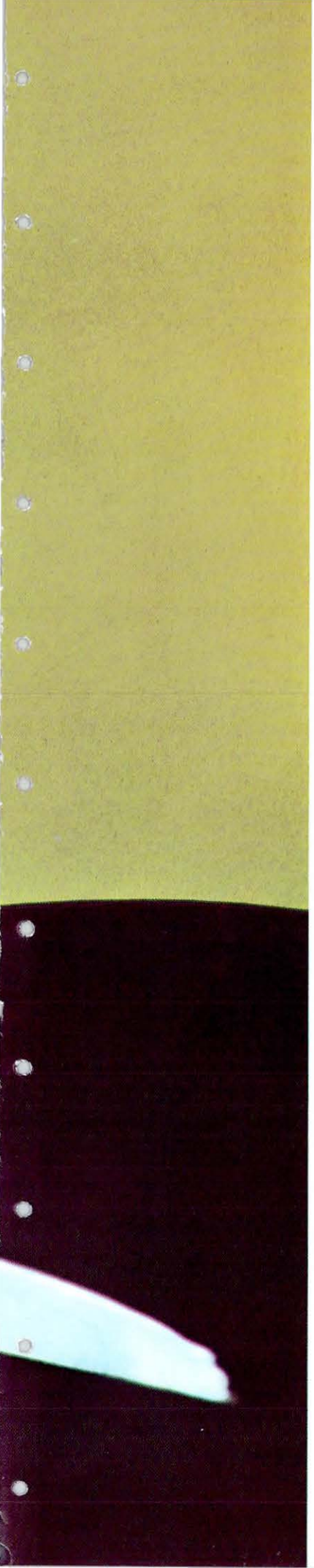
From current indications the most likely prospect is for a moderate — about 3% in real terms—expansion in the general level of economic activity in 1968, while inflationary pressures are expected to continue and may even accelerate further. Present and prospective escalations in labor costs and other costs pose a threat to the profitability of many business operations, including the railroads.

Effective measures to check disruptive inflationary forces continue to present a real challenge to the United States with respect to both its domestic and international affairs. A return to conditions of sustainable economic growth without inflationary trends is clearly indicated as the desirable goal of economic policy. Yet firm determination to meet this challenge has not been sufficiently manifested in either public or private sectors of the economy. With respect to the latter, continuation of excessive general increases in wages and other labor costs at now prevalent annual "pattern" rates of 5% —in some cases even more—are not compatible with noninflationary requirements.

The existing inflationary environment presents an especially difficult problem for railroads because of their high ratio of labor costs to revenues. In this labor-intensive industry, excessively rising labor costs cannot be met without limit by efficiency measures alone but must result either in compensating increases of rates and charges for railroad services or in further impairment of earnings and a deficiency of necessary funds for capital improvements.

While, for these reasons, the outlook for railroads in 1968 is not so encouraging, the longer range prospects — given a noninflationary environment — remain very favorable. This promising potential rests on solid foundations of rapidly advancing technology, more streamlined and efficient corporate structures through mergers, improved customer services, keener pricing backed by market and cost research, and beckoning opportunities for the modernization of work rules, as well as for the development of greater personnel skills to match tomorrow's superior operational and marketing methods.

The year 1968 will also witness the inauguration of high-speed and frequent passenger-train services between New York and Washington and between New York and Boston. These demonstration projects will go far to determine the future role of intercity passenger service by rail between major centers of population. ■



# It used to take the Reading 3 days and 10 to 15 locomotives to haul a boatload of ore from Philadelphia to Bethlehem.

# Now we do it in the same time with 3 Century 630's.

Here's a man that really knows how to work locomotives. And make them pay. He's Mr. F. G. Fisher, General Manager—Operations for The Reading Company.

"From the time those ore boats tie up at our Port Richmond docks, we have 72 hours to move 40,000 to 44,000 tons of ore from Philadelphia to Bethlehem. It's strictly a high-speed, fast-turnaround service over 55 miles of heavy grades and dense passenger operation. And that calls for locomotives you can count on.

"We used to put a five-unit consist of our old locomotives on each train of 80 to 85 cars. And we often needed two and three consists to deliver the ore on time.

"Now our three new ALCO Century 630's do the same job. Three trains a day, three days in a row. Boatload after boatload."

The ALCO Century 630's have an improved V-16, 3000 hp Model 251 diesel engine that delivers all the power you need. Speeds up to 70 mph. A new a-c rectified transmission that cuts maintenance. And dependability you can count on.

But don't take our word for it. Ask Mr. Fisher or any railroader who knows how to make locomotives work. Then contact us for complete data on the full line of ALCO locomotives. We'll show you how to make them work for you. Locomotive and Engine Products Division, ALCO Products, Inc., Dept. 331-10, Schenectady, New York 12305, a subsidiary of WORTHINGTON Corporation.

ALCO

Mr. F. G. Fisher, General Manager—Operations, The Reading Company.

'67 REVIEW

# Signaling & Communications,

## RAILROAD SIGNALING INSTALLED IN 1967

| Railroad | Highway Grade Crossings Protected by: Flashing light signals | Flashing light signals & gates | Centralized Traffic Control: Road Miles | Switches | Electric Locks | Signals | Interlockings: No. of Plants | Switches | Signals | Detectors † | Miscellaneous Signal Units * |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Alaska | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Algoma Cent. | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| A & S | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 |
| AT&SF | 42 | 60 | .. | .. | .. | .. | .. | .. | .. | 9 | .. |
| A&WP | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 8 |
| WRyA | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| BAR | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 |
| B&LE | .. | 1 | .. | .. | .. | .. | .. | .. | .. | 6 | 1 |
| B&M | 4 | 2 | 21 | 2 | 9 | 18 | 1 | .. | 4 | .. | 11 |
| C&N | 260 | 53 | 115 | 169 | 69 | 379 | 2 | 3 | 18 | 33 | 77 |
| CP | 148 | 21 | 327 | 105 | 39 | 432 | 2 | 3 | 8 | .. | 14 |
| CNJ | 3 | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| C&O | 30 | 16 | 48 | 12 | .. | 61 | .. | .. | .. | 9 | .. |
| B&O | 14 | 12 | .. | .. | .. | .. | 1 | 3 | 5 | 6 | 2 |
| C&NW | 34 | 11 | .. | .. | .. | .. | 2 | 2 | 4 | 10 | 130 |
| C&WI | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| CB&Q | 25 | 11 | 25 | 21 | 26 | 91 | .. | .. | .. | .. | .. |
| CGW | 8 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| CMStP&P | 31 | 11 | .. | .. | .. | .. | 1 | 1 | .. | 1 | 1 |
| CSS&SB | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 6 |
| CTS | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 240 |
| Cleveland TS | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 20 |
| D&H | 5 | 1 | .. | .. | .. | .. | .. | .. | .. | 1 | 8 |
| D&RGW | 17 | 3 | 42 | 13 | 10 | 61 | .. | .. | .. | .. | 1 |
| DT&I | 1 | 2 | .. | .. | .. | .. | .. | .. | .. | 26 | 70 |
| Ann Arbor | 3 | .. | .. | .. | .. | .. | 1 | 4 | 5 | .. | .. |
| DM&IR | 4 | .. | 10 | 2 | 6 | 10 | .. | .. | .. | .. | 4 |
| EJ&E | .. | 5 | .. | .. | .. | .. | .. | .. | .. | .. | 5 |
| EL | 6 | 3 | .. | .. | .. | .. | 1 | 2 | 5 | 2 | 2 |
| FEC | 10 | 9 | .. | .. | .. | .. | 1 | .. | 6 | 29 | 25 |
| GN | 16 | 2 | 10 | 1 | 2 | 5 | .. | .. | .. | .. | 10 |
| GB&W | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| GM&O | 6 | 3 | 18 | 3 | 13 | 16 | .. | .. | .. | 4 | .. |
| IC | 34 | 4 | 6 | .. | .. | 7 | 1 | 1 | 6 | 3 | 1 |
| KCT | .. | .. | .. | .. | .. | .. | 1 | .. | 2 | .. | .. |
| L&HR | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| LV | 3 | 1 | 60 | 4 | .. | 35 | .. | .. | .. | .. | .. |
| LI | 1 | 16 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| L&N | 25 | 4 | 27 | 16 | 7 | 41 | 2 | 6 | 11 | 3 | 10 |
| MEC | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| MKT | 11 | 1 | 1 | 2 | .. | 6 | .. | .. | .. | .. | .. |
| MP-T&P | 22 | 4 | 2 | 2 | .. | 6 | .. | .. | .. | 5 | 14 |
| Montreal Metro | .. | .. | 15 | 54 | .. | 259 | .. | .. | .. | .. | 552 |
| NYC | 26 | 30 | 83 | 2 | 17 | 50 | 33 | 11 | 41 | 67 | 7 |
| NYCTA | .. | .. | .. | .. | .. | .. | 8 | 50 | 128 | 1 | 170 |
| NS | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| N&W | 19 | 13 | 79 | 18 | 16 | 78 | 3 | 4 | 15 | 31 | 24 |
| NP | 14 | 4 | 60 | 9 | 18 | 27 | .. | .. | .. | 41 | 2 |
| ONL | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| PGE | 6 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| PRR | 15 | 14 | 33 | 2 | 9 | 44 | 34 | 56 | 67 | 68 | 133 |
| P&PU | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| PATH | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 28 |
| Reading | 3 | .. | .. | .. | .. | .. | 3 | 11 | 3 | 2 | 1 |
| StL-SF | 26 | 2 | .. | .. | .. | .. | .. | .. | .. | 40 | 26 |
| SCL | 57 | 25 | .. | 12 | 4 | 12 | 2 | .. | 11 | 6 | .. |
| SP | 69 | 250 | 6 | 4 | 1 | 10 | 5 | 17 | 37 | 33 | 40 |
| SP&S | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 98 |
| Tenn. Cent | 4 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| TRASt L | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | 6 |
| TH&B | 9 | .. | .. | .. | .. | .. | 1 | .. | 4 | .. | .. |
| UP | 25 | 23 | 84 | 24 | 18 | 132 | .. | .. | .. | .. | .. |
| WM | 5 | 1 | .. | .. | .. | .. | .. | .. | .. | 8 | .. |
| WP | 4 | 10 | .. | .. | .. | .. | .. | .. | .. | 3 | .. |
| Totals | 1,079 | 638 | 1,072 | 477 | 274 | 1,760 | 85 | 174 | 380 | 447 | 1,752 |

†Detectors include high load, hotbox, dragging equipment, broken or loose wheel, wide load, and presence.
*Includes automatic train stops, cab signals, automatic blocks signals, retarders, non-interlocked power switches, spring switches and electric locks not in CTC territory, snow melters (switch heaters), train order and other indication signals, electric switch lamps.

# rolling stock and M/W statistics

## RAILROAD COMMUNICATIONS INSTALLED IN 1967

| Railroad | Radio | | | Intercommunications | | | Carrier Equipment Terminals and Repeaters | | | Telephone | | Tele-type-writers | Micro-wave Stations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mobile | Base | Walkie-Talkies | No. of Yard Loud-speaker Systems | Loud-speakers | Tele-phones | Voice | Speech plus Tele-graph | Tele-graph | Ex-changes | Stations Available | | |
| Alaska | 3 | .. | .. | .. | .. | .. | 6 | .. | .. | .. | .. | 2 | .. |
| A&S | 2 | .. | 12 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| AT&SF | 224 | 5 | .. | .. | .. | .. | .. | .. | .. | 5 | .. | .. | 2 |
| A&WP | 5 | 1 | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Ga | 12 | 4 | 10 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| WRyA | 6 | .. | 4 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| BAR | 1 | .. | .. | .. | .. | .. | 53 | .. | .. | .. | .. | .. | .. |
| B&LE | 10 | 1 | 5 | 3 | 4 | 5 | 4 | .. | 4 | .. | .. | .. | .. |
| B&M | 10 | 2 | 8 | 1 | 5 | .. | .. | .. | .. | .. | .. | .. | 2 |
| CN | 326 | 18 | 299 | 1 | 60 | 75 | 898 | .. | 846 | 11 | 1,850 | 2,104 | .. |
| CP | 9 | 2 | 21 | 7 | 11 | 7 | 467 | .. | 1,655 | 5 | 106 | .. | .. |
| CNJ | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 40 | 1 | .. |
| C&O | 68 | 7 | .. | 2 | 101 | .. | .. | .. | .. | 1 | 125 | 40 | .. |
| B&O | 25 | 3 | 72 | 4 | 128 | 80 | 28 | .. | .. | 3 | 139 | 126 | .. |
| C&NW | 37 | 24 | 43 | 2 | 16 | .. | 92 | 2 | .. | 2 | 160 | 7 | .. |
| C&W | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 10 | .. | .. |
| CB&Q | 136 | 8 | 28 | 1 | 64 | 23 | 39 | 48 | .. | .. | .. | 56 | 9 |
| CMStP&P | 41 | .. | 10 | 6 | 49 | .. | 2 | 10 | 4 | 2 | 74 | 57 | .. |
| CRI&P | 202 | 12 | 106 | .. | .. | .. | 38 | .. | .. | 4 | 155 | 6 | .. |
| CSS&SB | 3 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| CTA | .. | .. | .. | 4 | 35 | .. | .. | .. | .. | .. | .. | .. | .. |
| Cleveland TS | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| D&H | 60 | 1 | 14 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| D&RGW | 31 | 9 | 20 | .. | .. | .. | 40 | 12 | 46 | .. | .. | 62 | .. |
| DT&I | 3 | 3 | 2 | 3 | 50 | .. | .. | .. | .. | .. | .. | 7 | .. |
| DM&IR | 2 | 1 | 15 | 2 | 5 | 2 | 2 | .. | .. | 1 | 70 | .. | .. |
| EJ&E | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| EL | 69 | 1 | 23 | 1 | 3 | .. | .. | .. | 45 | 2 | 30 | 48 | .. |
| FEC | .. | .. | .. | 1 | 11 | 1 | .. | .. | .. | .. | .. | .. | .. |
| GN | 56 | 13 | 69 | 4 | 32 | 12 | 38 | .. | .. | .. | .. | 40 | .. |
| GB&W | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| GM&O | 42 | 3 | 12 | 1 | 3 | .. | 8 | 4 | .. | .. | .. | 1 | .. |
| IC | 99 | 11 | 230 | 3 | 28 | 26 | 17 | 2 | 22 | 5 | 1,700 | 102 | .. |
| IT | 3 | 2 | 6 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| KCT | 11 | 1 | 15 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| K&IT | .. | 1 | 6 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| L&HR | 3 | 1 | .. | .. | .. | .. | .. | .. | .. | 4 | 500 | 8 | .. |
| LV | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| LI | 1 | .. | 20 | 1 | 6 | .. | .. | .. | .. | .. | .. | .. | .. |
| L&N | 145 | 92 | 54 | 6 | 47 | 25 | 26 | .. | 24 | 3 | .. | .. | 4 |
| MEC | 13 | .. | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| MKT | 15 | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. |
| MP-T&P | 29 | 26 | 29 | 3 | 20 | 40 | 87 | 20 | 26 | 6 | 175 | 13 | .. |
| Montreal Metro | 196 | 9 | 15 | 28 | 28 | .. | 200 | .. | .. | 1 | 260 | .. | .. |
| NYC | 612 | 22 | 84 | 7 | 139 | .. | .. | .. | .. | .. | .. | .. | .. |
| NYCTA | .. | .. | .. | 4 | 1,268 | 110 | .. | .. | .. | .. | .. | .. | .. |
| NYNH&H | 57 | 14 | 10 | .. | .. | .. | .. | .. | .. | .. | .. | 4 | .. |
| N&W | 77 | 22 | 72 | 4 | 61 | 15 | 95 | 4 | .. | 1 | 100 | 2 | 4 |
| NP | 36 | 3 | 30 | 6 | 58 | 22 | 145 | .. | 19 | 1 | 57 | 14 | 36 |
| ONL | 1 | 6 | .. | .. | .. | .. | 47 | .. | 20 | .. | .. | 10 | 3 |
| PGE | 13 | 2 | 10 | .. | .. | .. | 32 | 4 | 10 | .. | .. | 2 | 4 |
| PRR | 133 | 45 | 76 | 3 | 49 | 40 | 64 | 9 | 4 | 1 | .. | 1 | .. |
| Reading | 71 | .. | .. | 1 | 5 | .. | .. | .. | .. | .. | .. | .. | .. |
| RF&P | .. | .. | .. | .. | .. | .. | .. | .. | 2 | .. | .. | .. | .. |
| StL&SF | 13 | 3 | 74 | .. | .. | .. | .. | .. | .. | .. | .. | 30 | .. |
| SCL | 140 | 12 | 223 | 1 | 12 | .. | 34 | .. | .. | 4 | 240 | 4 | .. |
| SP | 231 | 8 | 38 | 7 | 77 | .. | .. | .. | .. | 13 | .. | .. | .. |
| SP&S | 6 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| TRASt.L | .. | .. | .. | 1 | 4 | .. | .. | .. | .. | .. | .. | .. | .. |
| TH&B | 7 | 4 | 12 | .. | .. | .. | 2 | .. | .. | .. | .. | 1 | .. |
| Union | 2 | .. | 15 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| UP | 420 | 5 | .. | .. | .. | .. | 9 | 27 | .. | 1 | 50 | 22 | 2 |
| WM | 10 | 3 | 17 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| WP | 11 | .. | 6 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Totals | 3,740 | 410 | 1,825 | 118 | 2,379 | 483 | 2,475 | 142 | 2,727 | 78 | 5,841 | 2,770 | 66 |

# 1967 FREIGHT-TRAIN CAR ORDERS

| Purchaser | No. | Type | Capacity | Length Ft. | Length In. | Weight | Ordered | Date Delivery | Builder |
|---|---|---|---|---|---|---|---|---|---|
| American Refrigerator Transit | 100 | Mech. Refgr. | 140,000 | 50 | .. | 86,000 | Apr. '67 | Sept.-Oct. '67 | Pacific Car & Foundry |
| | 100 | Mech. Refgr. | 140,000 | 50 | .. | 86,000 | Apr. '67 | Dec. '67-Jan. '68 | Pacific Car & Foundry |
| Atchison, Topeka & Santa Fe | 5 | Box | 200,000 | 86 | 6 | ..... | Feb. '67 | 1967 | Pullman-Standard |
| | 200 | Flat | 140,000 | 89 | 1 | ..... | June '67 | Nov., Dec. '67 | GATX |
| | 30 | Flat | 140,000 | 87 | 3 | ..... | Aug. '67 | Dec. '67 | Greenville Steel Car |
| | 30 | Flat | 200,000 | 40 | 10 | ..... | June '67 | Dec. '67 | Thrall Car |
| | 32 | Gondola | 200,000 | 42 | 6 | ..... | June '67 | Nov. '67 | Thrall Car |
| | 200 | Hopper | 140,000 | 40 | 9 | ..... | June '67 | Aug. '67 | Greenville Steel Car |
| | 35 | Box | 140,000 | 86 | 6 | ..... | June '67 | Aug. '67 | Thrall Car |
| | 10 | Flat | 200,000 | 48 | .. | ..... | June '67 | July '67 | Evans Products |
| | 54 | Box | 140,000 | 60 | 9 | ..... | Mar. '67 | Oct. '67 | Company Shops |
| | 64 | Flat | 140,000 | 89 | 4 | ..... | Mar. '67 | Oct. '67 | Company Shops |
| | 70 | Box | 200,000 | 60 | 11 | ..... | Mar. '67 | Oct. '67 | Company Shops |
| | 74 | Flat | 140,000 | 60 | .. | ..... | Mar. '67 | Dec. '67 | Company Shops |
| | 200 | Mech. Refgr. | 140,000 | 50 | .. | ..... | Aug. '67 | 2nd Qtr. '68 | Company Shops |
| | 44 | Flat | 140,000 | 89 | 4 | ..... | Aug. '67 | 1st Qtr. '68 | Company Shops |
| Baltimore & Ohio | 100 | Ins. Box | 140,000 | 50 | 1 | 82,300 | July '67 | Oct. '67 | Fruit Growers Express |
| | 50 | Gondola | 140,000 | 65 | .. | 71,000 | June '67 | Sept. '67 | Greenville Steel Car |
| | 100 | DF Box | 140,000 | 50 | .. | 76,300 | June '67 | Nov. '67 | Chessie-DuBois |
| | 25 | DFB Box | 140,000 | 50 | .. | 78,500 | June '67 | Nov. '67 | Chessie-DuBois |
| | 100 | DFB Box | 140,000 | 50 | .. | 71,200 | June '67 | Dec. '67 | Chessie-DuBois |
| | 26 | Box | 200,000 | 60 | .. | 129,000 | Oct. '67 | Mar. '68 | Chessie-DuBois |
| | 85 | Box | 140,000 | 60 | .. | 87,500 | Oct. '67 | Mar. '68 | Chessie-DuBois |
| | 1000 | Gondola | 200,000 | 52 | 6 | 69,800 | Nov. '67 | July '68 | Chessie-Raceland |
| | 20 | Hi-Cube Wood Chip | 140,000 | 56 | 1 | 65,000 | Nov. '67 | Mar. '68 | Ortner |
| | 177 | Auto Rack | 140,000 | 89 | .. | ..... | Oct. '67 | Jan. '68 | Whitehead & Kales |
| | 37 | Auto Rack | 140,000 | 89 | .. | ..... | Oct. '67 | Jan. '68 | Paragon |
| | 500 | Gondola | 200,000 | 52 | 6 | 69,800 | Nov. '67 | June '68 | Greenville Steel Car |
| Bangor & Aroostook | 50 | Mech. Refgr.. | 132,000 | 50 | 9 | 87,000 | June '67 | Dec. '67 | Pacific Car & Foundry |
| | 100 | Pulpwood Rack | 150,000 | 64 | .. | 67,500 | Sept. '67 | Jan. '68 | Berwick Forge |
| Bessemer & Lake Erie | 15 | Coil Steel Cov. Gondola | 237,000 | 53 | 4 | 78,300 | July '67 | Sept. '67 | Evans Products |
| | 10 | Coil Steel Cov. Gondola | 237,000 | 53 | 4 | 83,000 | July '67 | Dec. '67 | Evans Products |
| | 2 | Flat | 392,900 | 44 | .. | 109,000 | Sept. '67 | June '68 | Thrall Car |
| | 10 | Coil Steel Cov. Gondola | 193,000 | 52 | 6 | 70,000 | July '67 | Dec. '67 | Darby Corp. |
| Boston & Maine | 5 | Hopper | 200,000 | 39 | 7 | 60,700 | June '67 | Aug. '67 | ACF |
| Chesapeake & Ohio | 100 | Ins. Box | 140,000 | 50 | 1 | 81,800 | July '67 | Oct. '67 | Fruit Growers Express |
| | 31 | Auto Rack Hv. Duty | 140,000 | 89 | .. | ..... | June '67 | Oct. '67 | Whitehead & Kales |
| | 23 | Auto Rack Med. Duty | 140,000 | 89 | .. | ..... | June '67 | Oct. '67 | Whitehead & Kales |
| | 100 | DF Box | 140,000 | 50 | .. | 76,300 | June '67 | Nov. '67 | Chessie-DuBois |
| | 25 | DFB Box | 140,000 | 50 | .. | 78,500 | June '67 | Nov. '67 | Chessie-DuBois |
| | 100 | DFB Box | 140,000 | 50 | .. | 71,200 | June '67 | Dec. '67 | Chessie-DuBois |
| | 50 | AP Box | 200,000 | 60 | .. | 129,000 | Oct. '67 | Mar. '68 | Chessie-DuBois |
| | 50 | AP Box | 140,000 | 60 | .. | 87,500 | Oct. '67 | Mar. '68 | Chessie-DuBois |
| | 2500 | Hopper | 200,000 | 45 | .. | ..... | Sept. '67 | Aug. '68 | Chessie Raceland |
| | 30 | Hi-Cube Wood Chip | 140,000 | .. | .. | 65,000 | Nov. '67 | Mar. '68 | Ortner |
| | 37 | Auto Rack | 140,000 | 89 | .. | ..... | Oct. '67 | Dec. '67 | Paragon |
| | 40 | Auto Rack | 140,000 | 89 | .. | ..... | Oct. '67 | Jan. '68 | Whitehead & Kales |
| | 500 | Gondola | 200,000 | 52 | 6 | ..... | Nov. '67 | June '68 | Greenville Steel Car |
| | 100 | Caboose | ..... | .. | .. | ..... | Dec. '67 | May '68 | International Car |
| Chicago, Burlington & Quincy | 1 | Flat | 140,000 | 61 | 8 | ..... | Dec. '67 | June '68 | Company Shops |
| | 200 | Cov. Hopper | 190,000 | 54 | 6 | ..... | Oct. '67 | Feb. '68 | Pullman-Standard |
| | 200 | Cov. Hopper | 200,000 | 53 | 3 | ..... | Oct. '67 | Jan. '68 | ACF |
| | 300 | Hopper | 200,000 | 47 | 11 | ..... | Oct. '67 | Mar. '68 | Bethlehem Steel |
| | 25 | Flexi-Van Flat | 120,000 | 87 | 3-1/2 | ..... | Oct. '67 | Feb. '68 | St. Paul Foundry |
| Chicago, Milwaukee, St. Paul & Pacific | 200 | Cov. Hopper | ..... | 49 | 6 | 63,000 | Nov. '67 | Feb. '68 | Pullman-Standard |
| | 100 | Box | 200,000 | 60 | 8 | ..... | Nov. '67 | 1st Qt. '68 | Pacific Car & Foundry |
| | 50 | Cov. Gondola | 200,000 | 52 | 6 | ..... | Nov. '67 | 1st Qt. '68 | Thrall Car |
| | 50 | Ins. Box | 140,000 | 50 | 1 | 77,500 | Oct. '67 | Jan. '68 | GATX |
| | 25 | Hi-Cube Box | 140,000 | 40 | 6-1/2 | ..... | Sept. '67 | Jan. '68 | Pullman-Standard |
| | 5 | Hi-Cube Box | 200,000 | 86 | 6 | ..... | Sept. '67 | Dec. '67 | Pullman-Standard |
| | 50 | Box | 200,000 | 50 | 3 | ..... | Dec. '67 | Mar. '68 | Pullman-Standard |
| Chicago & North Western | 10 | Airsiide Cov. Hopper | 200,000 | 48 | 11 | 70,800 | Jan. '67 | Mar. '67 | GATX |
| | 1000 | Box | 140,000 | 50 | 6 | 62,800 | Feb. '67 | Oct. '67 | ACF |
| | 2 | Flat | 180,000 | 38 | 4 | 70,000 | Apr. '67 | Dec. '67 | Company Shops |
| | 300 | Cov. Hopper | 200,000 | 34 | 9 | 56,400 | June '67 | Nov. '67 | ACF |
| | 5 | Box | 200,000 | 86 | 6 | 117,000 | June '67 | Dec. '67 | Pullman-Standard |
| Colorado & Southern | 12 | Caboose | 100,000 | 30 | .. | 52,000 | Oct. '67 | April '68 | International Car |
| Delaware & Hudson | 8 | Caboose | 100,000 | 30 | 1/2 | ..... | Sept. '67 | Jan. '68 | International Car |
| | 100 | Cov. Hopper | 200,000 | 39 | 2 | 61,600 | Oct. '67 | Nov. '67 | Pullman-Standard |
| Denver & Rio Grande Western | 7 | Cov. Hopper | 200,000 | .. | .. | ..... | Sept. '67 | Apr. '68 | ACF |
| | 150 | Cov. Hopper | 199,000 | 49 | 6 | 62,900 | Aug. '67 | Mar. '68 | Pullman-Standard |
| | 50 | Gondola | 154,000 | 52 | 6 | 56,200 | Aug. '67 | Mar. '68 | Bethlehem Steel |
| | 25 | Gondola | 154,000 | 65 | 6 | 56,200 | Aug. '67 | Mar. '68 | Darby Steel |
| | 100 | Box | 140,000 | 50 | 6 | 64,000 | Aug. '67 | Mar. '68 | Evans Products |
| | 5 | Box | 140,000 | 60 | 9 | 77,000 | Nov. '67 | Mar. '68 | Evans Products |
| | 4 | Box | 144,000 | 86 | 6 | 118,000 | Aug. '67 | Dec. '67 | Pullman-Standard |
| | 11 | Box | 145,000 | 40 | 6 | 64,300 | July '67 | Dec. '67 | Pullman-Standard |
| Detroit & Toledo Shore Line | 6 | Box | 200,000 | 60 | .. | 73,500 | April '67 | June '67 | ACF |
| | 4 | Box | 140,000 | 60 | .. | 69,500 | April '67 | June '67 | ACF |
| Detroit, Toledo & Ironton | 35 | Coil Steel Flat | 195,000 | 46 | 8 | 68,000 | May '67 | Oct. '67 | Evans Products |
| | 100 | Coil Steel Flat | 189,000 | 48 | 6 | 74,000 | May '67 | Oct. '67 | Whitehead & Kales |
| | 25 | Ins. Box | 140,000 | 50 | 1 | 78,000 | Sept. '67 | Nov. '67 | U. S. Railway Equip. |
| | 50 | Cov. Hopper | 200,000 | 94 | 6 | 60,000 | June '67 | Sept. '67 | Pullman-Standard |
| Elgin, Joliet & Eastern | 22 | Cov. Hopper | 200,000 | 54 | 6 | 63,800 | July '67 | Aug. '67 | Pullman-Standard |
| Erie Lackawanna | 150 | Ins. Box | 140,000 | 50 | 1 | 76,000 | Jan. '67 | June '67 | ACF |
| | 50 | Cov. Hopper | ..... | 34 | 9 | 56,000 | Feb. '67 | June '67 | ACF |
| | 250 | Hopper | 140,000 | 40 | 7 | 54,000 | Jan. '67 | Apr.-May '67 | Bethlehem Steel |
| | 25 | Gondola | 140,000 | 52 | 6 | 67,000 | Jan. '67 | Jul. Aug. Sept. '67 | Ortner Freight Car |
| | 50 | Gondola | 140,000 | 65 | 6 | 67,000 | Jan. '67 | June '67 | Greenville Steel Car |
| | 20 | Refgr. | 140,000 | 50 | 9 | 88,000 | Sept. '67 | Jan. '68 | Pacific Car & Foundry |
| | 50 | Coil Flat | 200,000 | 53 | 6 | 68,000 | Nov. '67 | Feb., Mar. '68 | Greenville Steel Car |
| | 200 | Gondola | 140,000 | 52 | 6 | 63,000 | Sept. '67 | Nov., Dec. '67 | Bethlehem Steel |
| | 100 | Gondola | 140,000 | 65 | 6 | 81,000 | Sept. '67 | Nov., Dec. '67 | Greenville Steel Car |
| | 50 | Cov. Hopper | ..... | 49 | 9 | 62,000 | Sept. '67 | Jan. '68 | ACF |
| | 250 | Hopper | 140,000 | 40 | 7 | 54,000 | Sept. '67 | Feb., Mar. '68 | Greenville Steel Car |
| | 200 | Box | 140,000 | 50 | 6 | 65,000 | Sept. '67 | Jan. '68 | Pullman-Standard |
| | 80 | Box | 140,000 | 60 | 9 | 70,400 | Sept. '67 | Mar. '68 | ACF |
| | 80 | Ins. Box | 140,000 | 50 | 1 | 76,000 | Sept. '67 | Jan. '68 | GATX |
| Evans Products | 110 | Ins. Box | 140,000 | 50 | 1 | 78,000 | Sept. '67 | Jan. '68 | Evans Products |
| Florida East Coast | 8 | Caboose | 100,000 | .. | .. | ..... | ..... | Aug. '67 | Company Shops |
| | 4 | Box | 140,000 | 49 | 9 | ..... | ..... | May '67 | Leased GATX |
| | 2 | Box | 108,000 | 50 | 6 | ..... | ..... | Nov. '67 | Leased GATX |
| | 2 | Airslide Hopper | 140,000 | .. | .. | 72,560 | ..... | Oct '67 | Leased GATX |
| | 5 | Auto Racks | 140,000 | .. | .. | ..... | ..... | Jam. '68 | Whitehead & Kales |
| | 10 | Auto Racks | 140,000 | .. | .. | ..... | ..... | Jan. '68 | Whitehead & Kales |

# 1967 FREIGHT-TRAIN CAR ORDERS (Continued)

| Purchaser | No. | Type | Capacity | Length Ft. | Length In. | Weight | Ordered | Date Delivery | Builder |
|---|---|---|---|---|---|---|---|---|---|
| F. M. C. Corp. | 61 | Hopper | 208,000 | 44 | 11 | 63,000 | July '67 | Sept.-Nov. '67 | Bethlehem Steel |
| Fort Worth & Denver | 12 | Caboose | 80,000 | 30 | .. | 52,000 | Feb. '67 | Oct. '67 | International Car |
| Fruit Growers Express | 676 | RBL | 140,000 | 50 | .. | 80,000 | June '67 | Dec. '67 | Company Shops |
| Great Northern | 12 | Flat | 154,000 | 61 | 6 | 68,000 | July '67 | May '67 | Thrall Car |
| | 300 | Cov. Hopper | 200,000 | 54 | 5 | 63,200 | July '67 | Aug. '67 | Pullman-Standard |
| | 3 | Flat | 140,000 | 89 | .. | 67,000 | Oct. '67 | Oct. '67 | ACF |
| | 200 | Hopper | 200,000 | 48 | 7 | 75,000 | Dec. '67 | Feb.-Apr. '68 | Greenville Steel Car |
| | 30 | Air Dump | 183,000 | 39 | 9 | 79,000 | Oct. '67 | 2nd Qtr. '68 | Difco, Inc. |
| Gulf, Mobile, & Ohio | 10 | Airslide Cov. Hopper | 200,000 | 50 | 5 | 70,600 | June '67 | June, Sept. '67 | GATX |
| | 15 | Chain Cars | 200,000 | 61 | .. | 79,500 | Aug. '67 | Dec. '67 | Thrall Car |
| | 1 | Auto Rack | ..... | 89 | .. | ..... | Aug. '67 | Dec. '67 | Whitehead & Kales |
| | 10 | Coil Cars | 200,000 | 50 | .. | 65,000 | Nov. '67 | Feb. '68 | Evans Products |
| | 21 | RBL | 140,000 | 50 | 1 | 77,500 | Nov. '67 | Feb. '68 | GATX |
| | 5 | Caboose | ..... | .. | .. | ..... | Nov. '67 | 2nd Qtr. '68 | International Car |
| | 200 | Box | 140,000 | 50 | 7-1/2 | 64,500 | Nov. '67 | Mar. '68 | GATX |
| | 30 | Chain Cars | 200,000 | 61 | .. | 79,500 | Dec. '67 | May '68 | Thrall Car |
| Illinois Central | 280 | Hopper | ..... | 49 | 6 | 62,500 | Aug. '67 | Jan. Feb. '68 | Company Shops |
| | 150 | Gondola | 200,000 | 65 | .. | 74,500 | Sept. '67 | Feb., Mar. '68 | Bethlehem Steel |
| | 200 | Box | 140,000 | 50 | 6 | 64,500 | Nov. '67 | Feb., Mar. '68 | GATX |
| | 600 | Box | 140,000 | 50 | 6 | 63,000 | Nov. '67 | Jan., Mar. '68 | Pullman-Standard |
| | 50 | Caboose | 100,000 | 49 | 4 | ..... | Dec. '67 | 3rd Qt. '68 | Darby Corp. |
| Louisville & Nashville | 500 | Hopper | 160,000 | 42 | 10 | 53,600 | Aug. '67 | Jan., Feb. '68 | Pullman Standard |
| | 3 | Hi-Cube Box | 142,000 | 86 | 6 | 119,500 | Aug. '67 | Dec. '67 | Pullman-Standard |
| | 1100 | Hopper | 160,000 | 42 | 10 | 53,600 | Oct. '67 | Jan.-Apr. '68 | Company Shops |
| McCloud River | 50 | Box | 140,000 | 50 | .. | ..... | Mar. '67 | 2nd Qtr. '67 | Southern Iron & Equipment |
| Merchants Despatch | 100 | Flat | 120,000 | 87 | 3 | 61,100 | July '67 | Nov. '67 | Greenville Steel Car |
| Missouri-Kansas-Texas | 400 | Hopper | 200,000 | 49 | 9 | 63,000 | May '67 | June-Aug. '67 | Thrall Car |
| | 1 | Box | 140,000 | 60 | 9 | 81,500 | Mar. '67 | Sept. '67 | Pullman-Standard |
| | 75 | Gondola | 200,000 | 65 | 6 | 79,400 | May '67 | Dec. '67 | Thrall Car |
| | 25 | Gondola | 200,000 | 65 | 6 | 80,300 | May '67 | Dec. '67 | Thrall Car |
| | 200 | Gondola | 200,000 | 52 | 6 | 65,300 | May '67 | Oct. '67 | Greenville Steel Car |
| | 200 | Gondola | 200,000 | 52 | 6 | 62,900 | May '67 | Nov. '67 | Bethlehem Steel |
| | 200 | Gondola | 200,000 | 52 | 6 | 65,500 | May '67 | Oct. '67 | Thrall Car |
| | 500 | Box | 140,000 | 50 | 6 | 61,900 | Nov. '67 | Apr. '68 | ACF |
| | 100 | Box | 100,000 | 40 | 6 | 46,000 | Nov. '67 | May '68 | ACF |
| | 300 | Hopper | 200,000 | 45 | 1-3/4 | 61,000 | Dec. '67 | May '68 | Greenville Steel Car |
| Missouri Pacific | 200 | Box | 200,000 | 60 | 8 | 75,000 | Sept. '67 | Feb. '68 | Evans Products |
| | 200 | Hopper | 200,000 | .. | .. | ..... | 1967 | 1967-1968 | Company Shops |
| | 20 | Blk. Flat | 100,000 | 40 | .. | 56,000 | June '67 | Dec. '67 | Thrall Car |
| | 150 | Box | 140,000 | 50 | 6 | ..... | Oct. '67 | 1968 | Constructora Nacional |
| New York Central | 205 | Coil Steel Flat | 239,000 | 50 | 10 | 75,500 | June '67 | Oct. '67 | Greenville Steel Car |
| | 4 | Box | 142,000 | 86 | 6 | 119,000 | June '67 | Aug. '67 | Thrall Car |
| | 2 | Dep. Flat | 246,000 | 57 | 9 | 129,000 | June '67 | Oct. '67 | Despatch Shops |
| | 4 | Dep. Flat | 400,000 | 56 | 6 | 191,200 | June '67 | Jan. '68 | Despatch Shops |
| | 52 | Box | 98,000 | 36 | 6 | 120,900 | June '68 | Aug. '67 | Pullman-Standard |
| | 8 | Box | 98,000 | 86 | 6 | 121,000 | June '67 | Aug. '67 | Pullman-Standard |
| | 41 | Box | 105,000 | 86 | 6 | 113,800 | June '67 | July '67 | Pullman-Standard |
| | 250 | Gondola | 193,000 | 52 | 6 | 68,000 | May '67 | Aug. '67 | Despatch Shops |
| | 184 | Cov. Hopper | 191,000 | 63 | 8 | 71,500 | June '67 | Oct. '67 | ACF |
| | 75 | Box | 142,000 | 50 | 6 | 76,600 | June '67 | Dec. '67 | Pacific Car & Foundry |
| | 30 | Ins. Box | 140,000 | 50 | 2 | 82,200 | June '67 | Dec. '67 | Pacific Car & Foundry |
| | 200 | Cov. Hopper | 197,000 | 54 | 6 | 64,200 | July '67 | Oct. '67 | Pullman-Standard |
| | 90 | Box | 200,000 | 60 | 9 | ..... | Sept. '67 | Jan. '68 | Despatch Shops |
| | 126 | Box | 200,000 | 86 | 6 | 109,800 | Aug. '67 | Jan. '68 | Thrall Car |
| Norfolk & Western | 2000 | Hopper | 200,000 | 45 | .. | 59,000 | Aug. '67 | Oct. '67-July '68 | Company Shops |
| | 50 | Flat | 154,000 | 48 | 6 | 65,000 | Jan.-May '67 | June-Aug. '67 | Southern Iron & Equipment |
| | 3 | Dep. Flat | 400,000 | 25 | .. | ..... | Apr. '67 | Dec. '67 | Thrall Car |
| | 8 | Box | 142,000 | 86 | 6 | 119,000 | Jan. '67 | July '67 | Thrall Car |
| | 1000 | Box | 140,000 | 50 | 6 | 73,000 | June '67 | Oct. -Dec. '67 | Pullman-Standard |
| | 58 | Cov. Hopper | 190,000 | 48 | 1 | 70,800 | Mar. '67 | July-Aug. '67 | GATX |
| | 5 | Gondola | 150,000 | 48 | 6 | 67,000 | July '67 | Dec. '67 | Company Shops |
| | 50 | Flat | 154,000 | 41 | 6 | 61,000 | Mar. '67 | May-July '67 | Company Shops |
| North American Car | 727 | Tank | ..... | .. | .. | ..... | 1967 | 1968 | North American Car |
| | 200 | Hopper | 200,000 | .. | .. | ..... | Nov. '67 | Dec. '68 | North American Car |
| | 270 | RBL | 140,000 | 50 | .. | ..... | 1967 | 1968 | North American Car |
| | 105 | RBL | 200,000 | 60 | .. | ..... | 1967 | 1968 | North American Car |
| Northern Pacific | 10 | Airslide Cov. Hopper | 190,000 | 48 | 11 | 70,700 | Feb. '67 | Mar. '67 | GATX |
| | 25 | Air Dump | 200,000 | 39 | 9 | 79,700 | Mar. '67 | Dec. '67 | Difco Inc. |
| | 25 | Gondola | 140,000 | 65 | 6 | 54,700 | June '67 | Dec. '67 | St. Paul Foundry |
| | 20 | Box | 200,000 | 60 | 6 | 82,300 | June '67 | Dec. '67 | Gunderson Bros. |
| | 6 | Box | 116,000 | 40 | 6 | 60,600 | July '67 | Nov. '67 | Pullman-Standard |
| | 100 | Mech. Refgr. | 133,000 | 50 | 9 | 86,000 | Mar. '67 | Dec. '67 | Pacific Car & Foundry |
| | 100 | Cov. Hopper | 200,000 | 34 | 9 | 55,400 | July '67 | Nov. '67 | ACF |
| | 150 | Box | 140,000 | 50 | 6 | ..... | Sept. '67 | June '68 | Company Shops |
| Pennsylvania | 125 | Box | 140,000 | 60 | 8 | 87,700 | May '67 | Nov. '67 | Company Shops |
| | 10 | Box | 140,000 | 86 | 6 | 120,400 | Jan. '67 | May '67 | Thrall Car |
| | 125 | Box | 140,000 | 86 | 6 | 114,200 | Jan. '67 | Aug. '67 | Pullman-Standard |
| | 10 | Box | 200,000 | 86 | 6 | 117,700 | Aug. '67 | Dec. '67 | Pullman-Standard |
| | 100 | Cov. Hopper | 200,000 | 39 | 1 | 61,500 | Sept. '67 | Nov. '67 | Pullman-Standard |
| Pittsburg & Shawmut | 200 | Hopper | 110,000 | 31 | 5 | 45,000 | Aug. '67 | Jan. '68 | Greenville Steel Car |
| Reading | 100 | Ins. Box | 145,000 | 50 | .. | 75,000 | Mar. '67 | Sept., Oct. '67 | Company Shops |
| | 2 | Depressed Flat | 210,000 | 46 | 6 | 105,000 | Dec. '67 | 2nd Quarter '68 | Berwick Forge |
| Richmond, Fredericksburg & Potomac | 20 | Woodrack | 140,000 | 50 | .. | 55,100 | Aug. '67 | Oct. '67 | Fruit Growers Express |
| Seaboard Coast Line | 400 | Box | 110,000 | 40 | 4 | 54,900 | June '67 | Sept.-Oct. '67 | Pullman-Standard |
| | 150 | Box | 154,000 | 50 | 6 | 64,700 | June '67 | Nov. '67 | Pullman-Standard |
| | 400 | Box | 140,000 | 50 | 6 | 74,200 | June '67 | Nov. '67 | Pullman-Standard |
| | 50 | Box | 180,000 | 60 | 8 | 80,000 | June '67 | Dec. '67 | Pullman-Standard |
| | 600 | Box | 154,000 | 50 | 6 | 64,500 | June '67 | Nov.-Dec. '67 Jan. '68 | ACF |
| | 150 | Gondola | 200,000 | 37 | 1 | 50,300 | June '67 | Jan. '68 | Bethlehem Steel |
| Shippers Car Line | 1141 | Cov. Hopper | ..... | .. | .. | ..... | 1967 | 1967-1968 | ACF |
| | 98 | Flat | ..... | .. | .. | ..... | 1967 | 1967-1968 | ACF |
| | 1446 | Tank | ..... | .. | .. | ..... | 1967 | 1967-1968 | ACF |
| Soo Line | 200 | Box | 154,000 | 50 | 6 | 62,000 | Aug. '67 | Feb. '68 | Company Shops |
| | 25 | Bulkhead Flat | 180,000 | 53 | 6 | 78,000 | Sept. '67 | June '68 | Company Shops |
| | 3 | Dep. Ctr. Flat | 180,000 | 43 | 6 | 83,000 | Dec. '67 | July '68 | Company Shops |
| | 100 | Gondola | 200,000 | 52 | 6 | 63,000 | Aug. '67 | Jan. '68 | Thrall Car |
| | 15 | Cov. Gondola | 180,000 | 52 | 6 | 80,000 | Aug. '67 | Feb. '68 | Thrall Car |
| | 50 | Hopper | 200,000 | 48 | .. | 63,000 | Aug. '67 | Jan. '68 | Bethlehem Steel |
| | 50 | Ballast | 200,000 | 48 | .. | 63,000 | Aug. '67 | Feb. '68 | Bethelehm Steel |
| | 20 | Caboose | ..... | 30 | .. | 54,000 | July '67 | Apr. '68 | International Car |
| | 500 | Cov. Hopper | 210,000 | 54 | .. | 53,000 | July '67 | Jan. '68 | Magor |

## 1967 FREIGHT-TRAIN CAR ORDERS (Continued)

| Purchaser | No. | Type | Capacity | Length Ft. | Length In. | Weight | Ordered | Date Delivery | Builder |
|---|---|---|---|---|---|---|---|---|---|
| Southern | 1 | Well | 200,000 | 43 | .. | 73,600 | Apr. '67 | July '67 | Southern Iron & Equipment |
| | 31 | Box | 140,000 | 60 | 9 | 75,500 | May '67 | Sept. '67 | Pullman-Standard |
| | 25 | Cov. Hopper | 200,000 | 48 | 11 | 71,500 | June '67 | Oct. '67 | GATX |
| | 24 | Box | 140,000 | 60 | 9 | 75,500 | Dec. '67 | Mar. '68 | ACF |
| | 200 | Gondola | 200,000 | 52 | 6 | 66,000 | Dec. '67 | Mar. '68 | Pullman-Standard |
| Southern Pacific | 3794* | Various | ..... | .. | .. | ..... | ..... | 1967 | Various |
| St. Louis-San Francisco | 250 | Box | 140,000 | 50 | 6 | 65,000 | July '67 | Feb. '68 | ACF |
| | 100 | Ins. Box | 140,000 | 50 | 1 | 72,000 | July '67 | Jan. '68 | GATX |
| | 100 | Hopper | 200,000 | 49 | 6 | 61,000 | July '67 | Jan. '68 | Pullman-Standard |
| | 200 | Gondola | 195,000 | 52 | 6 | 67,000 | July '67 | Jan. '68 | Greenville Steel Car |
| | 25 | Hopper | 185,000 | 66 | 7 | 74,200 | Aug. '67 | Feb. '68 | Ortner Freight Car |
| | 12 | Airslide Hopper | 190,000 | 48 | 11 | 72,500 | Aug. '67 | Jan. '68 | GATX |
| | 10 | Hi-Cube Box | 144,000 | 86 | 6 | 118,100 | Sept. '67 | Jan. '68 | Pullman-Standard |
| Texas & Pacific | 75 | Bulkhead Flat | 140,000 | 53 | 6 | 76,000 | Sept. '67 | Nov. '67 | General Steel Industries |
| | 75 | Bulkhead Flat | 170,000 | 60 | .. | 86,700 | Sept. '67 | Jan. '68 | General Steel Industries |
| | 50 | Flat | 140,000 | 60 | .. | 81,200 | Sept. '67 | Feb. '68 | General Steel Industries |
| | 350 | Box | 140,000 | 50 | .. | 61,500 | Sept. '67 | Feb.-Mar. '68 | ACF |
| | 200 | Box | 200,000 | 60 | 8 | 75,000 | Sept. '67 | Jun-Feb. '68 | Evans Products |
| Texas-Mexican | 2 | Caboose | 80,000 | 30 | .. | 50,000 | Oct. '67 | Mar. '68 | International Car |
| Toledo, Peoria & Western | 50 | Cov. Hopper | 200,000 | 49 | 6 | 63,000 | Sept. '67 | Jan. '68 | Pullman-Standard |
| Trailer Train Company | 659 | Flat | 135,000 | 89 | .. | 75,000 | Jan. '67 | July '67 | ACF |
| | 40 | Flat | 125,000 | 89 | .. | 60,000 | Sept. '67 | Oct. '67 | ACF |
| | 11 | Flat | 135,000 | 89 | 4 | 75,000 | Sept. '67 | Oct. '67 | ACF |
| | 291 | Flat | 125,000 | 89 | 4 | 60,000 | Nov. '67 | Feb. '68 | ACF |
| | 127 | Flat | 125,000 | 89 | .. | 60,000 | Jan. '67 | Feb. '67 | Pullman-Standard |
| | 949 | Flat | 135,000 | 89 | .. | 75,000 | Feb. '67 | July '67 | Pullman-Standard |
| | 407 | Flat | 150,000 | 60 | .. | 70,000 | Jan. '67 | Dec. '67 | Pullman-Standard |
| | 851 | Flat | 125,000 | 89 | 4 | 60,000 | Sept. '67 | Jan. '68 | Pullman-Standard |
| | 1235 | Flat | 135,000 | 89 | .. | 75,000 | Jan. '67 | Aug. '67 | Bethlehem Steel |
| | 281 | Flat | 135,000 | 89 | 4 | 75,000 | Sept. '67 | Dec. '67 | Bethlehem Steel |
| | 10 | Flat | 135,000 | 89 | .. | 75,000 | Dec. '67 | Jan. '68 | Bethlehem Steel |
| Transport Leasing | 7 | Cov. Hopper | 200,000 | .. | .. | 63,000 | 1967 | 1967 | Pullman-Standard |
| | 17 | Cov. Hopper | 200,000 | .. | .. | 63,000 | 1967 | 1968 | Pullman-Standard |
| U. S. Railway Leasing | 599 | Hopper | 200,000 | 45 | .. | 61,500 | May '67 | July-Sept. '67 | Bethlehem Steel |
| | 30 | Ins. Box | 140,000 | 50 | .. | 78,000 | June -Sept. '67 | Sept.-Nov. '67 | Evans Products |
| Union Pacific | 24 | Box | 140,000 | 60 | 9 | ..... | Nov. '67 | Feb. '68 | Evans Products |
| | 1250 | Box | 100,000 | 40 | 6 | ..... | Aug. '67 | Jan.-Dec. '68 | Company Shops |
| | 125 | Flat | 180,000 | 60 | .. | ..... | Aug. '67 | Apr.-Oct. '68 | Company Shops |
| | 100 | Wood Chip | 180,000 | 60 | .. | ..... | Aug. '67 | Apr.-June '68 | Company Shops |
| | 300 | Box | 100,000 | 50 | 6 | ..... | Nov. '67 | Feb.-July '68 | Company Shops |
| Various Industrial Orders | 722 | Tank | ..... | .. | .. | ..... | 1967 | 1967-1968 | GATX |
| | 88 | Cov. Hopper | ..... | .. | .. | ..... | 1967 | 1967-1968 | Thrall Car |
| | 68 | Flat | ..... | .. | .. | ..... | 1967 | 1967-1968 | Thrall Car |
| | 2600 | Tank | ..... | .. | .. | ..... | 1967 | 1967-1968 | Various |
| | 396 | Gondola | ..... | .. | .. | ..... | 1967 | 1967-1968 | Thrall Car |
| | 70 | Hopper | ..... | .. | .. | ..... | 1967 | 1967-1968 | Thrall Car |
| | 17 | Flat | ..... | .. | .. | ..... | 1967 | 1967-1968 | North American Car |
| | 18 | Hopper | ..... | .. | .. | ..... | 1967 | 1967-1968 | North American Car |
| | 59 | Tank | ..... | .. | .. | ..... | 1967 | 1967-1968 | North American Car |
| Western Maryland | 100 | Box | 140,000 | 50 | 6 | 65,600 | Apr. '67 | Oct. '67 | ACF |
| | 20 | Ins. Box | 140,000 | 50 | 1 | 78,000 | Aug. '67 | Dec. '67 | Evans Products |
| | 40 | Gondola | 200,000 | 52 | 11 | 68,000 | Aug. '67 | Dec. '67 | Ortner Freight Car |
| | 10 | Gondola | 200,000 | 52 | 11 | 81,000 | Aug. '67 | Jan. '68 | Ortner Freight Car |
| Western Pacific | 20 | Box | 140,000 | 50 | .. | ..... | Jan. '67 | May '67 | Pacific Car & Foundry |
| | 15 | Flat | 140,000 | 60 | .. | ..... | Feb. '67 | May '67 | St. Paul Foundry |
| | 36 | Box | 200,000 | 86 | 6 | ..... | Aug. '67 | Dec. '67 | Pullman-Standard |

*Total added to SP fleet in 1967.

## 1967 FREIGHT-TRAIN CAR ORDERS—CANADA

| Purchaser | No. | Type | Capacity | Length Ft. | Length In. | Weight | Ordered | Date Delivery | Builder |
|---|---|---|---|---|---|---|---|---|---|
| Algoma Central | 100 | Bulkhead Flat | 140,000 | 61 | .. | 64,200 | Feb. '67 | July-Aug. '67 | National Steel Car |
| Canadian General Transit and North American Car, Canada Ltd. | 419 | Tank | 8,000-33,900 USG | .. | .. | ..... | 1967 | 1967-1968 | Hawker-Siddeley |
| Canadian National | 200 | Bulkhead Flat | 140,000 | 51 | 6 | 64,000 | Jan. '67 | July-Sept. '67 | Marine Ind. Ltd. |
| | 85 | Cyl. Ore Hopper | 200,000 | 22 | 5 | 53,000 | Mar. '67 | Nov.-Dec. '67 | National Steel Car |
| | 300 | Ins.-Heated Box | 140,000 | 50 | 6 | ..... | Sept. '67 | Jan. '68 | National Steel Car |
| | 100 | Cov. Hopper | 200,000 | 41 | 11 | 61,000 | Nov. '67 | Mar. '68 | Marine Ind. Ltd. |
| | 75 | Box | 100,000 | 86 | 6 | 119,000 | Aug. '67 | Jan.-Feb. '68 | Thrall Car |
| Canadian Pacific | 600 | Cov. Hopper | 206,900 | 48 | .. | 56,100 | Oct. '67 | Jan.-April '68 | Hawker-Siddeley |
| | 150 | Mech. Refrig. | 136,000 | 50 | 8 | 84,000 | Dec. '67 | May-June '68 | National Steel Car |
| | 60 | Ore Drop Bottom | 127,000 | 25 | 11 | 50,000 | Feb. '67 | July-Sept. '67 | International Equipment Company |
| International Nickel | 90 | Ore | 200,000 | 39 | 11 | ..... | July '67 | April '68 | Hawker-Siddeley |
| Ontario Northland Railway | 35 | Cov. Hopper | 200,000 | 22 | 5-3/8 | 56,900 | Mar. '67 | Nov. '67 | National Steel Car |
| Pacific Great Eastern | 20 | Gondola | 200,000 | 52 | 6 | 61,000 | April '67 | Sept. '68 | Hawker-Siddeley |
| | 41 | Box | 140,000 | 50 | .. | 57,000 | April '67 | May '68 | National Steel Car |
| Quebec, North Shore & Labrador | 10 | Box | 157,000 | 50 | 6 | 63,000 | Feb. '67 | May '67 | National Steel Car* |
| | 27 | Flat | 154,000 | 54 | 4 | 50,000 | July '67 | Oct. '67 | Napanee Ind. Ltd.* |
| | 30 | Gondola | 170,000 | 52 | 6 | 48,000 | July '67 | Oct. '67 | National Steel Car* |
| | 16 | Tank | 193,000 | 53 | .. | 70,000 | July '67 | Nov. '67 | Hawker-Siddeley* |
| | 3 | Cov. Hopper | 206,000 | 50 | .. | 57,000 | July '67 | Oct. '67 | ACF |

*Metrocan Lessor [1]Iron Ore Co. Lessee.

# 1967 LOCOMOTIVE ORDERS

| Purchaser | No. | Wheel Arrangement | Service | Weight Lb. | Horsepower | Order Date | Delivery Date | Builder |
|---|---|---|---|---|---|---|---|---|
| Atchison, Topeka & Santa Fe | 6 | B-B | Gen. Pur. | ..... | 3,000 | ..... | Dec. '67 | General Electric |
| | 9 | B-B | Gen. Pur. | ..... | 3,600 | ..... | Dec. '67 | EMD |
| Atlanta & West Point | 1 | B-B | Gen. Pur. | 265,000 | 3,000 | Feb. '67 | June '67 | EMD |
| Baltimore & Ohio | 13 | C-C | Gen. Pur. | 391,500 | 3,000 | April '67 | May '67 | EMD |
| | 50 | B-B | Gen. Pur. | 276,500 | 2,000 | Sept. '67 | Oct.-Nov. '67 | EMD |
| Bangor & Aroostook | 3 | B-B | Gen. Pur. | 262,500 | 2,000 | July '67 | Nov. '67 | EMD |
| Belt Railway of Chicago | 2 | B-B | Sw. | 260,320 | 1,500 | Dec. '67 | Mar. '68 | EMD |
| Bessemer & Lake Erie | 3 | C-C | Sw. | 356,000 | 2,000 | Jan. '67 | May '67 | EMD |
| Birmingham Southern | 2 | B-B | Sw. | 239,000 | 1,000 | July '67 | Nov. '67 | EMD |
| Chesapeake & Ohio | 7 | C-C | Rd. Sw. | 392,000 | 3,000 | April '67 | May-June '67 | EMD |
| | 4 | C-C | Rd. Sw. | 362,000 | 3,000 | Sept. '67 | Oct. '67 | Alco |
| | 4 | C-C | Rd. Sw. | 353,200 | 3,000 | Sept. '67 | June '67 | General Electric |
| | 50 | B-B | Gen. Pur. | 275,500 | 3,000 | Sept. '67 | Nov.-Dec. '67 | EMD |
| Chicago & North Western | 7 | C-C | Gen. Pur. | 390,000 | 3,000 | Nov. '67 | Feb. '68 | General Electric |
| Chicago, Burlington & Quincy | 5 | B-B | Rd. Fr. | ..... | 3,000 | Oct. '67 | Feb. '68 | General Electric |
| | 20 | B-B | Rd. Fr. | ..... | 3,000 | Oct. '67 | Feb. '68 | EMD |
| Chicago, Milwaukee, St. Paul & Pacific | 6 | .... | Sw. | 385,000 | 3,600 | Oct. '67 | Jan. '68 | EMD |
| | 10 | .... | Sw. | 266,400 | 3,000 | Oct. '67 | Jan. '68 | EMD |
| | 4 | .... | Sw. | 388,000 | 3,300 | Oct. '67 | Jan. '68 | General Electric |
| | 5 | .... | Sw. | 268,000 | 3,000 | Oct. '67 | Jan. '68 | General Electric |
| Delaware & Hudson | 6 | C-C | Frt. | 390,000 | 3,000 | Oct. '67 | Jan. '68 | General Electric |
| Denver & Rio Grande, Western | 12 | C-C | Gen. Pur. | 390,000 | 3,000 | Sept. '67 | Mar. '68 | EMD |
| Erie Lackawanna | 20 | C-C | Road | 360,000 | 3,600 | April '67 | June '67 | EMD |
| Georgia | 2 | B-B | Gen. Pur. | 265,000 | 3,000 | Feb. '67 | June '67 | EMD |
| Great Northern | 10 | C-C | Frt. | 366,000 | 3,600 | Oct. '66 | May '67 | EMD |
| | 8 | C-C | Frt. | 395,000 | 3,600 | Oct. '66 | July '67 | EMD |
| | 10 | B-B | Sw. | 262,000 | 1,500 | Aug. '67 | Oct. '67 | EMD |
| | 9 | C-C | Frt. | 375,000 | 3,300 | Dec. '67 | Apr. '68 | General Electric |
| Green Bay & Western | 1 | B-B | Frt. | 262,000 | 3,000 | July '67 | Jan. '68 | Alco |
| Hampton & Branchville | 1 | B-B | Sw. | 230,000 | 1,000 | ..... | Aug. '67 | EMD |
| Houston Belt & Terminal | 3 | B-B | Sw. | 260,000 | 1,000 | Aug. '67 | Dec. '67 | EMD |
| Illinois Central | 6 | B-B | Gen. Pur. | 368,000 | 3,000 | Aug. '67 | Jan. '68 | EMD |
| Kentucky & Indiana Terminal | 2 | .... | Sw. | 247,500 | 1,500 | Oct. '67 | Feb. '68 | EMD |
| Lake Superior & Ishpeming | 2 | C-C | Frt. | 360,000 | 2,250 | Aug. '67 | April '68 | General Electric |
| Lehigh Valley | 9 | C-C | Frt. | 400,000 | 2,750 | June '67 | Dec. '67 | Alco |
| Louisville & Nashville | 20 | B-B | Frt. | 255,000 | 3,000 | July '67 | Sept.-Oct. '67 | EMD |
| | 5 | B-B | Frt. | 270,000 | 3,000 | Aug. '67 | Dec. '67 | General Electric |
| Minnesota Transfer | 2 | .... | Sw. | 250,000 | 1,500 | May '67 | July '67 | EMD |
| Missouri-Kansas-Texas | 12 | B-B | Gen. Pur. | 234,000 | 3,000 | Aug. '67 | Oct. '67 | EMD |
| | 2 | B-B | Sw. | 239,000 | 1,500 | Aug. '67 | Dec. '67 | EMD |
| Monon | 12 | B-B | Frt. | 269,650 | 2,000 | June '67 | Aug.-Sept. '67 | Alco |
| New York Central | 10 | B-B | Rd. Sw. | 276,000 | 3,000 | June '67 | Aug. '67 | General Electric |
| | 5 | B-B | Rd. Sw. | 276,880 | 3,000 | June '67 | July '67 | EMD |
| By Lease: | | | | | | | | |
| | 25 | B-B | Rd. Sw. | 275,600 | 3,000 | ..... | Oct. '67 | General Electric |
| | 25 | B-B | Rd. Sw. | 276,880 | 3,000 | ..... | Sept. '67 | EMD |
| | 15 | B-B | Rdl Sw. | 270,000 | 3,000 | ..... | Dec. '67 | General Electric |
| | 25 | B-B | Rd. Sw. | 276,970 | 3,000 | ..... | Nov. '67 | EMD |
| | 10 | B-B | Rd. Sw. | 277,420 | 3,000 | ..... | Dec. '67 | Alco |
| Norfolk & Western | 30 | B-B | Gen. Pur. | 277,500 | 3,000 | June '67 | Aug.-Sept. '67 | EMD |
| | 20 | B-B | Gen. Pur. | 280,000 | 3,000 | June '67 | June-July '67 | General Electric |
| Northern Pacific | 10 | C-C | Frt. | 390,000 | 3,600 | Dec. '67 | May -July '68 | EMD |
| Pennsylvania | 15 | C-C | Frt. | 391,500 | 3,600 | Oct. '67 | Jan.-Feb. '68 | Alco |
| | 20 | C-C | Frt. | 390,500 | 3,300 | Oct. '67 | Jan.-Feb. '68 | General Electric |
| | 65 | C-C | Frt. | 390,500 | 3,600 | Oct. '67 | Dec. '67-Jan. '68 | EMD |
| Pennsylvania-Reading Seashore Lines | 5 | B-B | Gen. Pur. | 262,000 | 2,000 | Oct. '67 | Dec. '67 | EMD |
| Portland Terminal | 2 | .... | Sw. | 240,000 | 1,000 | Oct. '67 | Jan. '68 | Alco |
| Reading | 5 | C-C | Gen. Pur. | 401,210 | 3,600 | Feb. '67 | July '67 | EMD |
| | 5 | C-C | Gen. Pur. | 393,960 | 3,000 | Feb. '67 | Oct. '67 | Alco |
| | 5 | C-C | Gen. Pur. | 403,500 | 3,000 | Feb. '67 | June-July '67 | General Electric |
| Richmond, Fredericksburg & Potomac | 8 | B-B | Sw. | 257,000 | 1,500 | Aug. '67 | Sept.-Oct. '67 | EMD |
| Sandersville | 1 | B-B | Sw. | 250,000 | 1,500 | ..... | Dec. '67 | EMD |
| Seaboard Coast Line | 16 | B-B | Frt. | 273,000 | 3,300 | June '67 | Dec. '67-Jan. '68 | General Electric |
| Soo Line | 10 | C-C | Gen. Pur. | 361,000 | 3,000 | Sept. '67 | Apr. '68 | General Electric |
| Southern | 55 | C-C | Gen. Pur. | 395,000 | 3,600 | Aug. '67 | Nov.-Dec. '67 | EMD |
| | 5 | C-C | Ge.n Pur. | 395,000 | 3,000 | Aug. '67 | Dec. '67 | General Electric |
| Southern Pacific | 13 | B-B | Sw. | 250,000 | 1,000 | ..... | Aug. '67 | EMD |
| | 49 | C-C | Rd. Sw. | 400,000 | 3,600 | ..... | Feb. '67 | EMD |
| | 41 | C-C | Rd. Sw. | 400,000 | 3,600 | ..... | Apr. '67 | EMF |
| | 10 | C-C | Rd. Sw. | 400,000 | 3,600 | ..... | May '67 | EMD |
| | 18 | B-B | Sw. | 250,000 | 1,500 | ..... | Aug. '67 | EMD |
| Spokane, Portland & Seattle | 6 | C-C | Road | 360,000 | 3,600 | June '67 | Dec. '67 | Alco |
| St. Louis-San Francisco | 12 | C-C | Sw. | 386,000 | 3,600 | Aug. '67 | Jan. '68 | EMD |
| Texas-Mexican | 1 | B-B | Rd. Sw. | 255,000 | 2,000 | ..... | June '67 | EMD |
| Toledo, Peoria & Western | 2 | B-B | Sw. | 248,000 | 1,500 | Aug. '67 | Feb. '68 | EMD |
| Union Pacific | 40 | .... | Frt. | ..... | 3,600 | Sept. '67 | Apr.-May '68 | EMD |
| Various Industrial | 13 | B-B | Sw. | ..... | 1-2,000 | 1967 | 1967 | EMD |
| | 40 | B-B | Sw. Mine | ..... | 150-900 | 1967 | 1967-1968 | General Electric |
| Western Pacific | 6 | B-B | Frt. | ..... | 3,000 | Feb. '67 | Apr. '67 | EMD |
| | 5 | B-B | Frt. | ..... | 3,000 | June '67 | Sept. '67 | General Electric |
| Western Railway of Alabama | 1 | B-B | Gen. Pur. | 265,000 | 3,000 | Feb. '67 | June '67 | EMD |

# 1967 LOCOMOTIVE ORDERS—CANADIAN DOMESTIC

| Purchaser | No. | Wheel Arrangement | Service | Weight Lb. | Horsepower | Order Date | Delivery Date | Builder |
|---|---|---|---|---|---|---|---|---|
| Canadian National | 68 | C-C | Rd. Sw. | 387,000 | 3,000 | April '67 | Oct. '67-June '68 | GMD Ltd. |
| | 42 | C-C | Rd. | 390,000 | 3,000 | May '67 | Dec. '67-April '68 | Montreal Locomotive |
| Canadian Pacific | 8 | C-C | Frt. | 390,000 | 3,000 | Dec. '67 | July '67-Aug. '68 | Montreal Locomotive |
| Iron Ore Company | 1 | B-B | Gen. Pur. | 260,000 | 1,200 | Jan. '67 | Mar. '68 | GMD Ltd. |
| Quebec North Shore & Labrador (Metrocan Leasing) | 6 | C-C | Gen. Pur. | 387,000 | 3,000 | Oct. '67 | July '68 | GMD Ltd. |

(Continued on page 104)

# NEW Rapid Transit cars cut flight time in and out of Cleveland.

Soon 20 new Pullman-Standard stainless steel transit cars like this one will zip passengers from the doorway of Cleveland Hopkins International Airport to downtown in just 20 minutes. The Cleveland Transit System's new trains will be the only system in the nation making a direct city-to-airport connection.

The new cars are 70-footers, seating 80 passengers in air-conditioned comfort. All cars will ride smoother, more reliably and at lower cost on Timken® tapered roller bearings. Original CTS cars roll on Timken roller bearings, too. Timken bearings are made of fine case-carburized steel for extra toughness. Tapered designed to take both radial and thrust loads—or any combination.

The Timken Roller Bearing Company, Canton, Ohio. Also makers of fine alloy steel and rock bits. Timken bearings sold in 133 countries; manufacturing in Australia, Brazil, Canada, England, France, South Africa and the United States.

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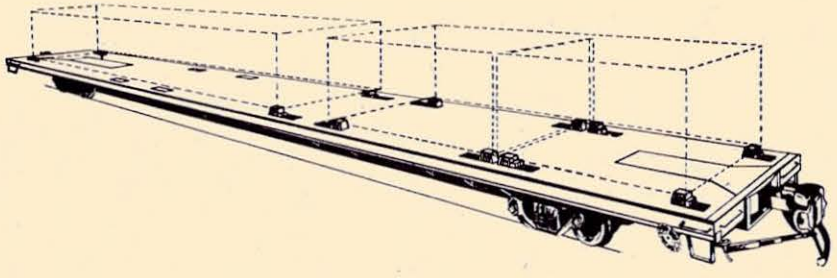
# the answer

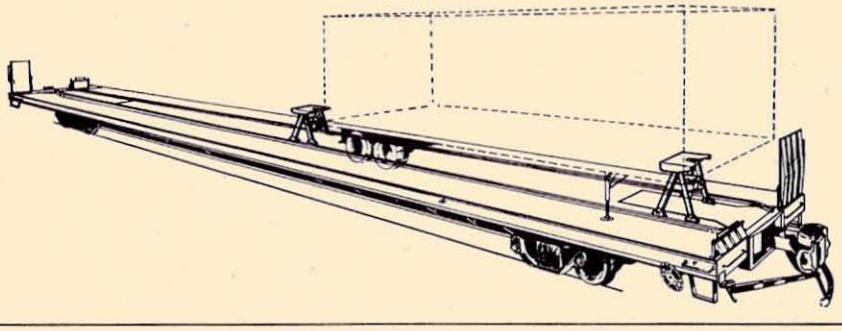
# car

# Magor's Flexi-Quad

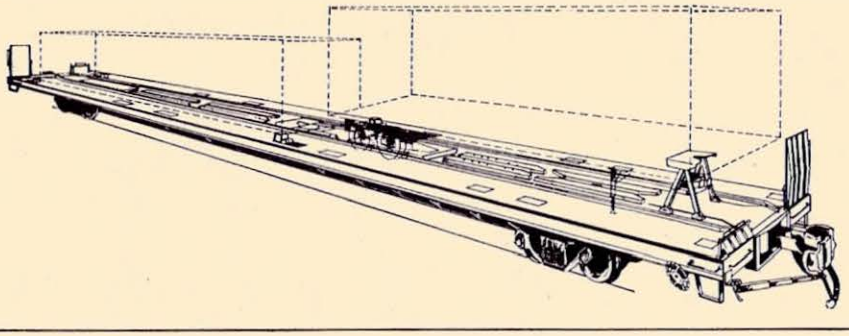
Pop-up container adapters meet USASI corner casting dimensions and accept the vast majority of domestic and foreign-built containers. They fold flush with the floor when not in use. "Safe-Lock" System minimizes human error—automatically secures containers to the base and they can only be released manually.



Pull-up, knock-down, double A-frame stanchions are fully 32 inches wide and ruggedly braced to provide exceptional trailer stability. They readily adapt to lift-on, lift-off or circus loading and are compatible with most yard equipment now in use. Special features include a low closed height of only 5⅜ inches and a manual king pin release with automatic reset.



Optional Flexi-Van equipment permits the Flexi-Quad Car to handle containers, trailers and Flexi-Van containers with ease and efficiency. That's complete versatility for you.



A true multi-purpose car and a solid long-range investment value—that's the all-new Flexi-Quad Car, Magor's answer to railroading's latest needs. It handles trailers, containers and Flexi-Vans with easy-going efficiency—or can be used in special applications.

Magor computer studies, based on A.A.R. recommendations on trackability, helped determine Flexi-Quad's specifications to ensure optimum performance on curves (89'4" length—60" coupler length—70' truck centers).

The Flexi-Quad Car is now completing successful in-service testing in various TOFC and COFC operations. It is also available to any railroad interested in making its own tests. Write for details. **Magor Railcar Division, Fruehauf Corporation, 660 Van Houten Avenue, Clifton, New Jersey 07015.**

RPI

**MAGOR**

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## 1967 LOCOMOTIVE ORDERS—FOREIGN

| Purchaser | No. | Wheel Arrangement | Service | Weight Lb. | Horsepower | Order Date | Delivery Date | Builder |
|---|---|---|---|---|---|---|---|---|
| Angola | 30 | C-C | Gen. Pur. | 211,000 | 2,150 | May '67 | Aug.-Nov '67 | General Electric |
| Argentina | 3 | B | Mine | 18,000 | 80 | July '67 | Mar. '68 | General Electric |
| Bolivia | 2 | B | Mine | 8,000 | 26 | Mar. '67 | Jan. '68 | General Electric |
| | 2 | B | Mine | 10,000 | 26 | Sept. '67 | Mar. '68 | General Electric |
| | 2 | B | Mine | 16,000 | 80 | Sept. '67 | Mar. '68 | General Electric |
| Chile | 1 | B | Mine | 22,000 | 60 | Dec. '67 | July '68 | General Electric |
| Holland | 7 | B-B | Sw. | 180,000 | 600 | Nov. '67 | June-July '68 | General Electric |
| Honduras | 5 | C-C | Gen. Pur. | 120,000 | 1,050 | June '67 | Dec.'67-Jan. .68 | General Electric |
| Indian Railways | 32 | C-C | Gen. Pur. | 160,000 | 1,380 | Feb. '67 | Dec. '67 | Montreal Locomotive |
| Indonesia-Indonesia State Railway | 3 | A1A | Gen. Pur. | 144,000 | 1,000 | Jan. '67 | Nov. '67 | General Motors Overseas |
| Iran-Iranian State Railway | 2 | B-B | Gen. Pur. | 144,000 | 1,000 | Apr. '67 | Mar. '68 | General Motors Overseas |
| | 1 | B-B | Gen. Pur. | 160,000 | 1,500 | Mar. '67 | Jan. '68 | General Motors Overseas |
| Italy | 1 | B-B | Sw. | 200,000 | 600 | Feb. '67 | Sept. '67 | General Electric |
| | 1 | B | Sw. | 80,000 | 380 | Sept. '67 | Apr. '68 | General Electric |
| Korea | 1 | B-B | Sw. | 90,000 | 300 | Dec. '67 | July '68 | General Electric |
| Korea-Korean National | 22 | B-B | Gen. Pur. | 160,000 | 1,500 | Feb. '67 | June '67 | General Morors Overseas |
| | 40 | C-C | Gen. Pur. | 360,000 | 2,000 | Feb. '67 | May-June '67 | General Motors Overseas |
| Mexico | 1 | B | Sw. | 70,000 | 275 | June '67 | Jan. '68 | General Electric |
| | 1 | B-B | Sw. | 90,000 | 300 | May '67 | Dec. '67 | General Electric |
| | 2 | B-B | Sw. | 160,000 | 550 | Mar. '67 | Sept. '68 | General Electric |
| | 1 | B-B | Sw. | 200,000 | 600 | Feb. '67 | Apr. '68 | General Electric |
| | 2 | B-B | Sw. | 220,000 | 620 | May '67 | Feb. '68 | General Electric |
| Mexico-Altos Hornos | 2 | B-B | Gen. Pur. | 250,000 | 2,000 | Mar. '67 | July '67 | General Motors Overseas |
| Mexico-Coahuila-Zacatecas | 1 | B-B | Gen. Pur. | 111,000 | 890 | Dec. '67 | Dec. '67 | General Motors Overseas |
| National Railways of Mexico | 12 | C-C | Frt. | 375,190 | 2,750 | July '67 | Jan. '68 | Alco |
| | 10 | C-C | Pass. | 375,910 | 2,750 | July '67 | Dec. '67 | Alco |
| Panama | 4 | B-B | Gen. Pur. | 64,000 | 335 | Sept. '67 | Mar. '68 | General Electric |
| SAGE-Anglo Alpha Cement | 1 | B-B | Sw. | 140,000 | 1,050 | Nov. '67 | Nov. '67 | General Electric |
| Saudi Arabia-Saudi Govt. Railway | 5 | 3 | Gen. Pur. | 144,000 | 1,000 | July '67 | Mar. '68 | General Motors Overseas |
| South African Railways | 90 | C-C | Gen. Pur. | 190,000 | 2,150 | Sept. '67 | July '68-June '69 | General Electric |
| Tajwan | 1 | B-B | Sw. | 100,000 | 300 | May '67 | Nov. '67 | General Electric |


# New name:

Gustin-Bacon is now a division of Certain-teed Products Corporation

CERTAINTEED

# Fixed-property improvements

New track construction accounted for 24% of total capital expenditures in 1967 by Class I railroads of Canada and the United States for projects costing $1 million or more, according to reports submitted to Railway Age. The second leading category in terms of cost was for yards and terminals, which represented 30% of the total. The third category by cost, line changes, accounted for 18% of the total.

A number of roads reported that their plans for 1968 capital expenditures had not been fully developed. Those on which such plans had been completed reported that money allotted for yards and terminals would reach 24% of the total, closely followed by line changes with 20%. New track construction will take up 13% of the total expenditures and CTC installations 10%.

Following are brief descriptions of the improvement projects authorized for 1968 that are estimated to cost $100,000 or more. These are followed by a list of projects that will cost $1 million or more, which were either completed or under way in 1967.

## AUTHORIZED FOR 1968

**Bessemer & Lake Erie:** Construct stacking and reclaiming facilities for additional coal-storage piles at Conneaut, Ohio, $1,000,000.

**Baltimore & Ohio/Chesapeake & Ohio:** Construct bunkhouse for trainmen at Stevens, Ky., $535,600; construct a connection with Southern at Cincinnati, Ohio, $170,000; construct a "head-on" connection at Cincinnati, $408,700; construct a resthouse for trainmen at Holloway, Ohio, $208,400; retire second main and install CTC on Buffalo division, $1.458,600; install hot-bearing detectors on Northern Region, $103,100; construct industrial tracks at Livonia, Mich., $182,000; upgrade the signal and communication pole line from Grand Rapids, Mich., to Benton Harbor, $296,200; make track changes to handle unit coal trains at Essexville, Mich., $196,500; construct yard office at Huntington, W. Va., $157,000; expand the yard at Dayton, Ohio, $1,000,000; and make track changes at Penn-Mary, Md., $500,000.

**Clinchfield:** Rearrange existing trackage and construct new tracks in yard at Kingsport, Tenn., $730,884.

**Delaware & Hudson:** Relocate railroad facilities in connection with the construction of Interstate Route 90 at Albany, N.Y., $1,500,000.

**Denver & Rio Grande Western:** Make line change between Pueblo, Colo., and Swallows, $2,679,460; construct fuel track facilities at North yard, $106,920; construct a lead track and industrial spurs and improve the area to serve North Washington Industrial Park at North Denver, Colo., $361,390; install CTC between Pueblo and Salida, Colo., $450,000; and increase clearance and line tunnels with concrete on Craig branch, $125,000.

**Erie Lackawanna:** Replace bridge over Cuyahoga river at Cleveland, Ohio.

**Great Northern:** Construct 18-mile Bentonite spur at Glasgow, Mont.; construct a new grade and move the eastbound track out of Tunnel No. 1 at Blacktail, Mont.; extend siding 3,265 feet at Leonia, Ida.; rearrange and extend terminal yards at Vancouver, B.C.; construct car-repair facilities


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| 3 | Do you want a single car that can unload by all three methods—pressure differential, gravity and pneumatic? | ☐ | ☐ |
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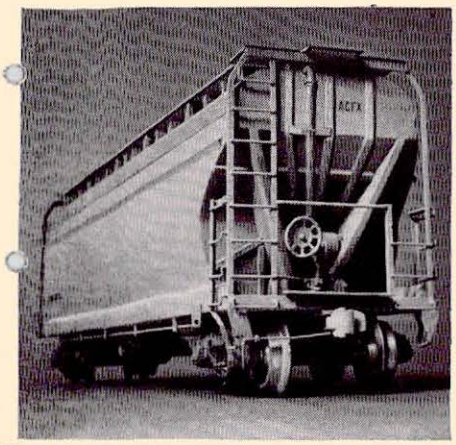

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## WATCHING **WASHINGTON** WITH WALTER TAFT

TAFT

**FAVORITE SUBJECTS**—When members of Congress talk about railroads these days, they seldom talk about anything but passenger-train discontinuances and mergers. A like reflection of what the public seems to be concerned about came at the first news conference held by the ICC's 1968 chairman—Commissioner Paul J. Tierney. Most of the reporters' questions were about train-offs and pending merger cases.

Tierney had anticipated this. His formal statement reported the present status and prospective future timeables of the merger cases. It also included a pitch for favorable Congressional action on pending bills to give the Commission more power to deal with train-abandonment proposals. The more power would be authority to impose conditions under which trains kept on would be operated. Another feature of the proposed legislation contemplates giving the Commission more time to process train-off notices. Merger-moratorium bills are also pending, but Tierney said the Commission still opposes any such legislation.

**PASSENGER SERVICE**—The Chairman's general comment on railroad passenger service said it is in a transition period which will have "broad and long-range effects." He thinks some passenger operations will be identified as essential and survive, but the identification and survival plans will require "tremendous studies." No one is making such studies now, he added, conceding, however, that the high-speed ground transportation project at the Department of Transportation is a start on what he has in mind. He also pointed out that D.O.T., not ICC, has the promotional role.

More specifically, Tierney said he does not think the future's essential passenger service will include transcontinental trains. He does think, however, that commutation services will remain essential, and that other essential services could include faster and more appealing service on intercity runs up to 300 miles or so.

**MERGERS**—The Chairman's statement on mergers predicted that the evolving pattern of the railroad network will become clearer this year. The big job of processing merger cases was spotlighted when Tierney went on to say this chore has "virtually drained the Commission of its available staff resources," posing "one of our most serious problems."

His rundown on the pending merger cases warned that the Commission may soon consider dismissing, for want of prosecution, the application filed by Missouri Pacific for authority to acquire control of the Santa Fe. His estimates of the 1968 timetables have hearings in the Rock Island cases concluding next fall while hearings in the North Western-Milwaukee case are expected to end in the early spring. As to Norfolk & Western-Chesapeake & Ohio, "hopefully, an examiner's report will be completed before the end of this year."

**GOALS FOR 1968**—Tierney's comment on the Commission's 1968 legislative program kept the call for more power to prescribe through routes at par with the call for more train-off power as a top priority item. The through-routes proposal has been advanced to give the Commission muscle to provide shippers with more and better service for small shipments. While the principal objective is thus power to require truckers to enter through-route arrangements, the Commission's request also seeks power to prescribe intermodal routes between truckers, on the one hand, and railroads, express companies and water carriers, on the other.

The latter is needed to pave the way for more intermodal coordination, Tierney said. The railroads oppose it. The Commission already has power to require railroads, express companies and water carriers to establish joint routes—both intramodal and intermodal.

at classification yard at Interbay, Wash.; construct grading for proposed line changes between Scenic, Wash., and Skykomish; construct a new yard at New Westminster, B.C.; make changes and repairs to Dock No. 4 at Allouez, Wis.; replace wiring, switchgear and panels in general office building at St. Paul, Minn.; construct car-repair facilities at Union yard at Minneapolis, Minn.; improve diesel servicing and repair facilities at Minneapolis, Minn.; construct diesel service facilities at Havre, Mont.; install six hot-box detectors on system; install CTC with fourth aspect between Nolan, N.D., and Casselton; place fourth signal aspect between Bainville, Mont., and Glasgow; and install CTC between Sandpoint, Ida., and Troy, Mont.

**Illinois Central:** Construct south leg of wye at Central station, Chicago, $1,225,000; construct storage tracks to serve local industries at Louisville, Ky., $145,000; construct 2.1 miles of mine lead tracks to serve two mines at Sentry, Ky., $595,000; strengthen bridges for heavier loading on Aberdeen district, $105,000; install microwave between Chicago and Jackson, Miss., with spurs to Paducah, Ky., and Vicksburg, Miss., $3,300,000; install automatic car-identification facilities on system, $300,000; and install hot-box detectors at various locations on system, $375,000.

**Lehigh Valley:** Install CTC and take up 44 miles of tracks between Laceyville, Pa.; and Milan, $300,000; install CTC and take up 48 miles of track between Manchester, N.Y.; and Batavia, $750,000; and install automatic flasher and gate protection at four locations, $100,000.

**Louisville & Nashville:** Improve yard at Birmingham, Ala., $783,388; make alterations to freighthouse and expand the auto-handling facilities at Radnor yard, Tenn., $222,807; rearrange trackage to improve switching and car handling at Mobile, Ala., $546,139; construct wye track at Memphis Jct., Ky., $138,895; construct industrial track at New Johnson, Tenn., $485,866; construct track to serve Metropolitan Industrial Park at Nashville, Tenn., $353,731; install asphalt pavement at the piggyback unloading and trailer-parking at Tilford yard, Ga., $129,185; deveolp property for relocation of piggyback facilities at Dalton, Ga., $179,173; improve yard facilities at Leewood, Tenn., $393,349; construct yard office, yardmaster's tower and office for piggyback facilities at Leewood, Tenn., $117,642; construct customer-service building and yardmaster's tower at East St. Louis, Ill., $149,000; construct warehouse at Cincinnati, Ohio, $328,955; install communications,

including automatic telephone plant at Evansville, Ind., $105,000; install communications including automatic telephone plant at East St. Louis, Ill., $105,000; and acquire additional portable radios, $192,500.

**Missouri Pacific:** Replace 3,480 feet of creosoted pile trestle with 2,638 feet of reinforced-concrete trestle at bridges No. 2650, 2654 and 2659 near Newport, Ark.; replace 575 feet of creosoted pile trestle and a 54-foot deck plate girder with a 70-foot through plate-girder span and 563 feet of reinforced-concrete trestle at bridge No. 31.7 near Baytown, Tex.; replace 612 feet of pile trestle with 48-inch metal pipe culvert and backfiill at bridge No. 21.3 near Highlands, Tex.; replace 770 feet of timber trestle with 756 feet of concrete trestle at bridge No. 207.6 near McFaddin, Tex.; construct a second main track, 2.8 miles long between Nuckles, Ark., and Olyphant; extend interchange track at Fair Oaks, Ark.; construct industrial track at Pineville, La.; revise grade on 2.33 miles of track at Frederick, Kan.; make a 2.77-mile line and grade revision near Piedmont, Mo.; install electric switch heaters at 36 remotely controlled switches on DeSoto, Hoxie and Chester subdivisions; convert 13.3 miles of automatic block signals to CTC near Fults, Ill.; replace 100 train radios with new transistor radios; and construct a spot-repair facilitity at Laredo Tex.

**New York Central;** Construct overpass to eliminate grade crossing of Elliot-Mound road near Detroit, Mich., $2,400,000; reconstruct bridge No. 0-153 at Sea Breeze, N.Y., to provide a bascule span, $1,200,000; relocate tracks and other facilities at Springfield Ohio, $520,000; relocate tracks and other facilities at Youngstown, Ohio, $400,000; construct a new single-track bridge over Rouge river and relocate tracks near Dearborn, Mich., $800,000; convert more passenger elevators in general office at New York, from manual to automatic operation $350,000; relocate passenger station and related facilities from downtown Albany, N.Y., to Karner Road, Colonie, N.Y., $2,700,000; **relocate tracks and** other facilities necessitated by the relocation of Welland Canal, $10,000,000; install 12 hot-box and dragging-equipment de tectors, $200,000; convert Tower C to remote control at Grand Central Terminal, New York, $106,000; combine interlocking and remote control from dispatcher's office at Buffalo, N.Y., $102,000; install traffic-control system from Himrods Jct., N.Y., to Geneva, $100,000; convert Swan Creek interlocking to remote control at Toledo, Ohio, $138,000; and install TCS and retire second main track from Porter, Ind., to Ivanhoe, $284,000.

**Northern Pacific:** Lower tracks and improve clearance in tunnel at Ostrander, Wash., $200,000; make track changes at north end Rice's Point and south lead and sewer connection at Duluth, Minn., $260,000; improve and expand the yard facilities at Missoula, Mont., $135,000; extend west end of the departure tracks at Pasco, Wash., $165,000; expand the joint yard at Longview, Wash., $150,000; construct additional trackage to serve West Seattle line at Seattle, Wash., $250,000; include interlocking plant in CTC at Staples, Minn., $244,000; extend CTC from Laurel, Mont., to Mossmain, $101,000; control NX system from CTC at Glendive, Mont., to Laurel, Mont., $110,000; install hot-box detectors from Forsyth, Mont., to Billings, $103,000; replace 50 semaphore signals with searchlight type from Helena, Mont., to Garrison, $144,000; install weigh-in-motion scale, computer control for car routing at Pasco, Wash., $775,000; extend CTC from Castle Rock, Wash., to Wabash, $1,230,000; install micro-wave facilities from Billings, Mont., to Seattle, Wash., $3,850,000; construct yard office at Laurel, Mont., $214,000; construct new TOFC facilities at Pasco, Wash., $200,000; construct Phase 1 of TOFC-COFC facility at South Seattle, Wash., $743,000; construct two tracks, paving and portable ramp for TOFC-COFC facilities at Tacoma, Wash., $182,000; provide facilities for centralizing all freight-car wheel work at Brainard, Minn., $650,000; construct rail-welding plant, rail cropping and panelizing site at Laurel, Mont., $200,000; and construct one-spot car shop at Missoula, Mont., $486,000.

**Pennsylvania:** Construct auto-unloading facilities at Ford Motor Co. preparation center at Newark, N.J., $954,805; modernize Popes Creek branch for new industrial development at Brandywine, Md., $1,454,000; reconstruct 15 spans of bridges No. 0.15 and 0.21 on Harsimus branch at Jersey City, N.J., $356,836; renew signal cable from Newark, N.J., to Trenton, $180,104; install track facilities to serve Federal Warehouse, Inc., at Perth Amboy, N.J., $326,521; reconstruct four spans of bridge No. 1.93 on Delaware Extension at Philadelphia, Pa., $188,056; reconstruct three spans of elevated line in West Philadelphia, Pa., $125,885; renew floor system and decking on overhead bridge No. 43.96 at Parkesburg, Pa., $117,620; renew catenary over No. 1 track at Philadelphia, Pa., $106,285; replace wood trestle with steel piling and steel spans over Anacostia river at Washington, D.C., $159,810; reconstruct undergrade


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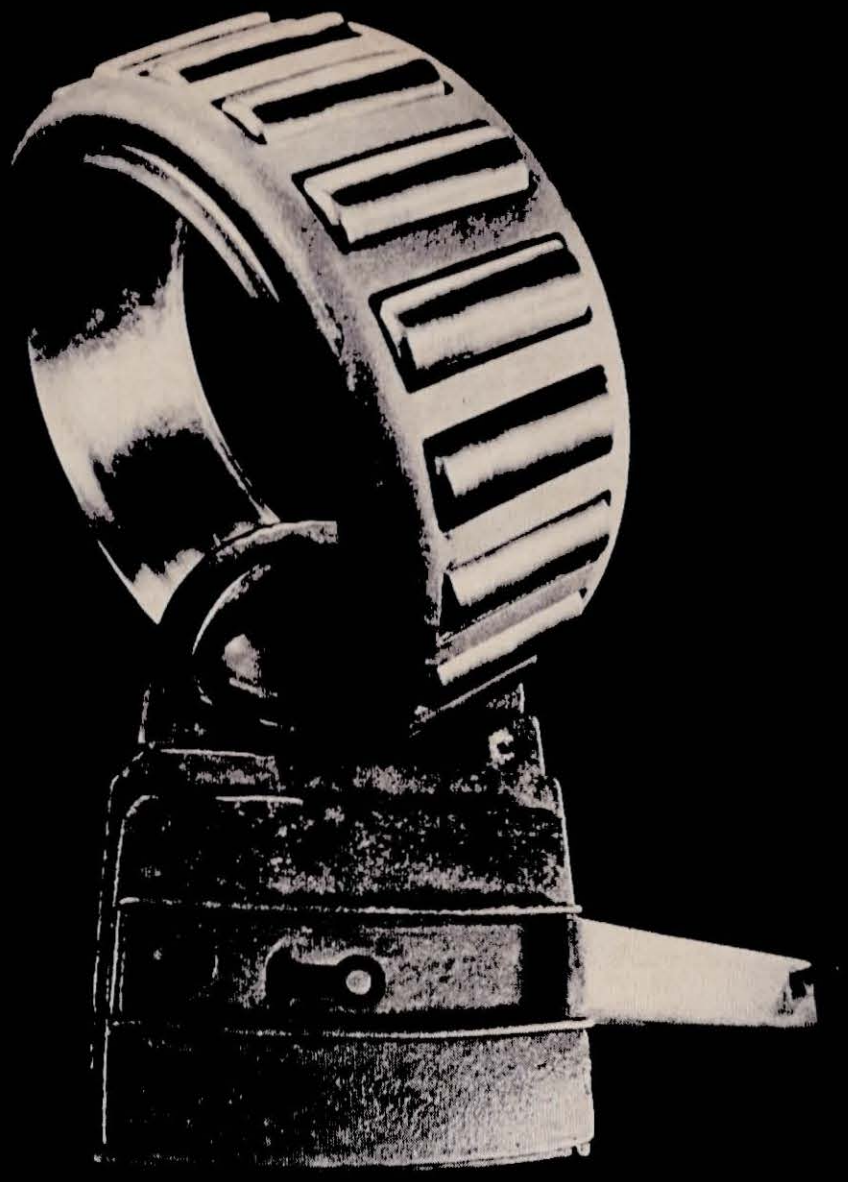

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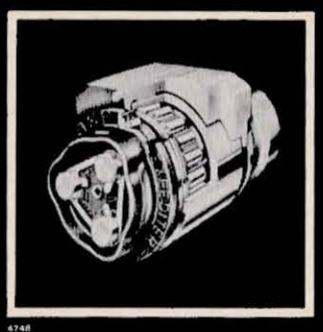

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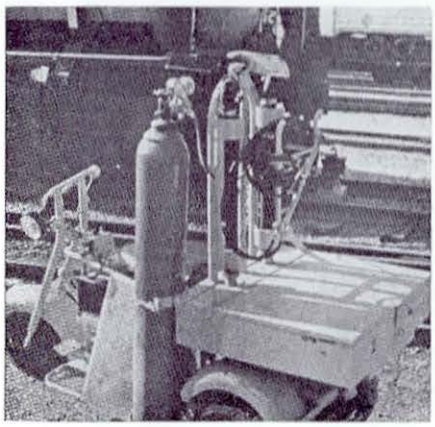

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bridge No. 1.98 at Wilmington, Del., $160,749; eliminate oil pollution of Susquehanna river from disposal plant at Enola, Pa., $102,940; construct side track to serve Ralston Purina Co. at Mechanicsburg, Pa., $292,165; replace two retarders, install presence detectors and three additional air compressors at Enola, Pa., $490,808; install Phase 1 of retarder project at Morrisville, Pa., $503,849; replace coal-fired boilers with oil-fired at Newark, N.J., $118,000; modify service plant facilities at New York, $195,011; reconstruct overhead bridge at Belmont-Girard avenue in Philadelphia, Pa., $171,530; construct engine facilities at South Philadelphia, Pa., $202,140; lower hump to facilitate flat switching at Wilmington, Dela., $202,234; install automatic retarders in Bay View yard in Baltimore, Md., $301,835; consolidate bridge arch structure with grout at Rockville, Pa., $143,470; improve locomotive facilities at Enola, Pa., $502,231; replace existing steel bridge with concrete arches in Scully yard at Pittsburgh, Pa., $461,000; construct industrial development yard at Leetsdale, Pa., $207,000; improve train movement through Kiski yard at Truxall, Pa., $160,000; construct auto-unloading facility at Lordstown, Ohio, $190,000; fireproof the enginehouse at Conway, Pa., $794,000; construct one-spot diesel servicing facility at Conway, Pa., $706,000; provide additional facilities to permit classification of long and heavy cars at Conway, Pa., $920,000; construct run-around track to support industrial park at Fort Wayne, Ind., $102,210; remote control New Paris, Ind., Greenville and West Manchester and convert Hewitt interlockings to automatic operation, $156,800; install hot-box detectors at various locations on Western Region, $284,268; construct new track facilities to serve industry at Lima, Ohio, $157,059; install new trackage to serve industry at Detroit, Mich., $883,327; construct industrial park support trackage at Gibsonburg, Ohio, $682,000; construct industrial park support yard at Columbus, Ohio, $448,500; upgrade Zanesville branch from Bremen, Ohio, to Lancaster, $333,000; construct trackage to serve west industrial site at Columbus, Ohio, $391,000; consolidate Yard "A" and "B" switching into Grogan yard at Columbus, Ohio, $2,810,000; install facilities at 55th Street to handle TTX cars with overhead cranes at Chicago, $588,529; install gas-fired heating plants in buildings in coach yard in Chicago, $123,000; and install automatic highway crossing protection at Dayton, Ohio, $379,900.

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**mac:** Make track changes in Acca yard at Richmond, Va., to accommodate traffic due to the merger of the SAL and ACL, $1,050,000.

**St. Louis-San Francisco:** Rearrange Lindenwood yard at St. Louis, Mo., $602,000; and construct industrial track at Springfield, Mo., $124,000.

**Southern:** Make terminal additions and improvements at various points, $993,000; and construct or extend wayside tracks, $1,602,000.

**Union Pacific:** Eliminate present speed restriction at Ridge, Wyo., by the replacement of 2.91 miles of double main track having a total curvature of 121 deg 53 min., $2,000,000; and consolidate interlockings at Omaha, Neb., installing NX system, $99,000.

## Completed or under way

*(Figures in parentheses indicate percentage of completion on Jan. 1, 1968)*

**Baltimore & Ohio/Chesapeake & Ohio:** Construct foundation retainer for dredging slips to a depth of 47 feet at Pier No. 14, Newport News, Va., $2,064,000 (100); extend track up Pond Fork at Barrett, W. Va., $1,112,600 (100); construct spur track at Shelby Gap, Ky., $2,517,000 (100); install CTC from Limeville, Ky., to Parsons, Ohio, $1,050,000 (100); expand Wyoming yard at Grand Rapids Mich., $2,535,726 (100); construct coal pier at Curtis Bay, Md., $10,500,000 (100); extend Egypt Valley line at Lafferty, Ohio, $6,700,000 (90); construct industrial tracks at Vandalia, Ohio, $1,258,600 (100); install CTC from Willard, Ohio, to Ohio-Indiana line, $1,298,320.

**Bessemer & Lake Erie;** Construct two 6,000-ton coal storage silos with feeders and conveyors and a 4,000-tph slewing shiploader at Conneaut, Ohio, $2,000,000 (100).

**Canadian National:** Construct merchandise terminal at Toronto, Ont., $5,400,000 (95); construct industrial spur and support yard at Talbotville, Ont., $2,195,000 (85); construct terminal at Vancouver, B.C., $27,000,000 (50); construct 438-mile line from Grimshaw, Alta., to Pine Point, N.W.T., $86,250,000 (97).

**Canadian Pacific:** Last phase of project to construct a freight shed etc., at Outremont, Que., $2,686,000 (100); first phase of two-year program to construct one-spot and freight-car repair facilities at St. Luc yard, $1,687,000 (10); third phase of four-year program to install CTC and extend sidings on Schreiber division, $2,271,400 (80); and fourth phrase of five-year program to install CTC signaling and sidings between Calgary, Alta., and Vancouver, B.C., $2,887,000 (80).

*(Continued on page 116)*

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one hundred percent
of wood?

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**Chicago, Burlington & Quincy:** Construct 17,200 feet of yard and industry trackage at Ft. Madison, Iowa, $125,000; second phase of four-year project to fully automate the hump yard at North Kansas City, Mo., $7,300,000; extend yard trackage to serve refrigerated cars at Pacific Jct., Iowa, $150,000; construct one-spot type heavy freight-car repair facility at Havelock, Nebr., $472,000; install one-spot cleaning facility at North Kansas City, Mo., $300,000; construct trackage to serve new cement plant at Clarksville, Mo.

**Chicago, Milwaukee, St. Paul & Pacific:** Construct 6.4-mile line from east of Smyrna, Wash., to Royal City, $1,000,000 (100).

**Denver & Rio Grande Western:** Install CTC between Pueblo, Colo., and Salida, $1,010,510 (65); and construct line change between Glenwood, Colo., and Chacra, $1,743,340 (100).

**Detroit, Toledo & Ironton:** Install hump with semi-automatic car retarders and route switching, additional receiving and departure tracks, yard office and welfare facilities at Flat Rock, Mich., $7,000,000 (95).

**Great Northern:** Install taconite storage and loading facilities, including trackage, at Allouez, Wis., $100); construct 4.5 miles of track to serve taconite plant at Keewain, Minn. (100); consruct last phase of Index Line change near Gold Bar, Wash. (100); and construct classification yard at Interbay, Wash. (5).

**Illinois Central:** Construct 26 miles of new line between Redwood, Miss., and Valley, $3,300,000 (100).

**Lehigh Valley:** Reconstruct main line between Cranford, N.J., and Newark, $2,250,000 (100).

**Louisville & Nashville:** Construct prestressed-concretee trestle with swing span over Bay St. Louis, Miss., $4,900,000 (100); and install CTC signaling at Wauhatchie, Tenn., $1,000,500 (90).

**Missouri-Kansas-Texas:** Relocate approximately 5.8 miles of main track between Denison, Tex., and Dallas, $3,000,000 (30).

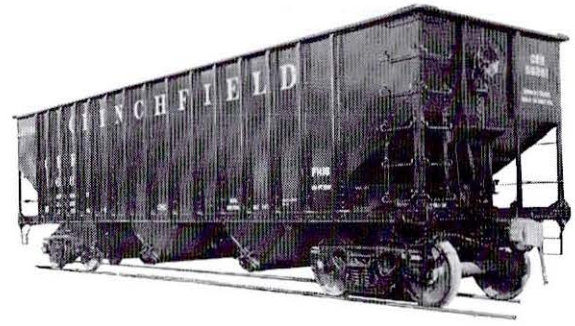
**Missouri Pacific:** Construct industrial track at Baytown, Tex. (100); and modify bridges incident to Arkansas River Navigation project between Little Rock, Ark., and Benzal (1).

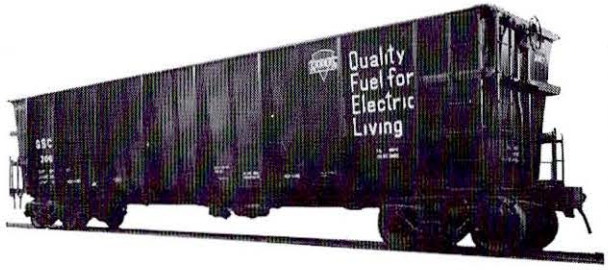
**New York Central:** Construct a 70-track modern classification yard with related facilities at Selkirk, N.Y., $28,400,000 (58); continue the reconstruction of spans 6 and 7 at bridge No. 0228 near Oswego, N.Y., to obtain additional clearance, $1,000,000 (5); and install computer-operated retarder control system and yard communication

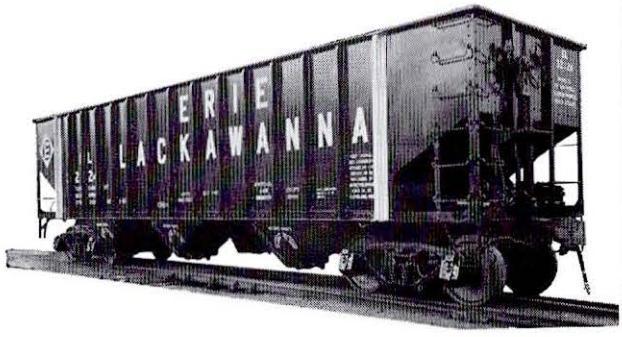
(*Continued on page* 123)

# By 1975 an additional 80,000,000 tons of coal will move by rail to power companies annually.

# Will your car fleet be ready for the job?




That's the forecast. Even with unit trains and fast turn arounds many more cars will be needed to handle that traffic. Coal hauling railroads are already considering this in their planning. The variety of cars envisioned is reflected in recent Greenville designs:

- ☐ **New, high-sided gondolas, some with rotary couplers for unit train service.**
- ☐ **Triple and quadruple cross hoppers for unit trains.**
- ☐ **Bottom dump equipped with hydraulic controlled, longitudinal doors.**
- ☐ **Conventional triple hoppers for general service.**

With new coal fields opening up, more railroads than ever will be involved with this major hauling problem. If your road is one of them, it's time you talked with Greenville. Regardless of your needs, Greenville has the cars for the job. Let's get together and discuss them.

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*To readers of Railway Age . . .*

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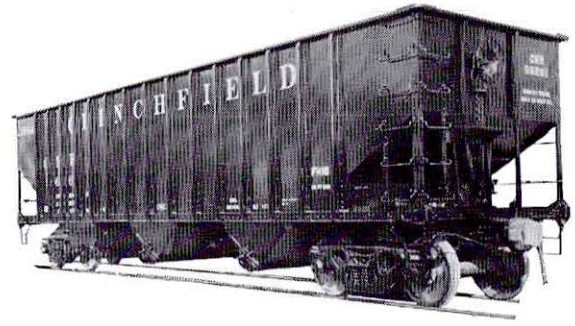


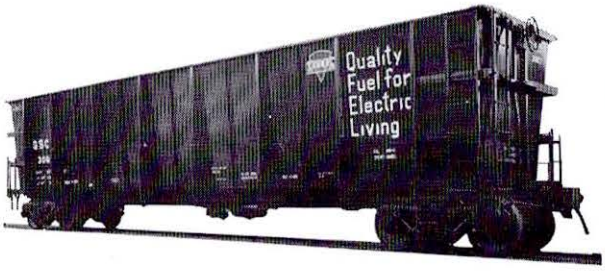


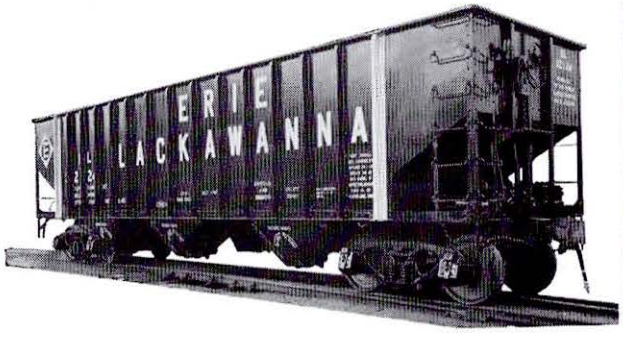


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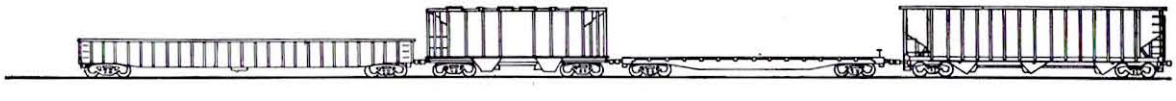

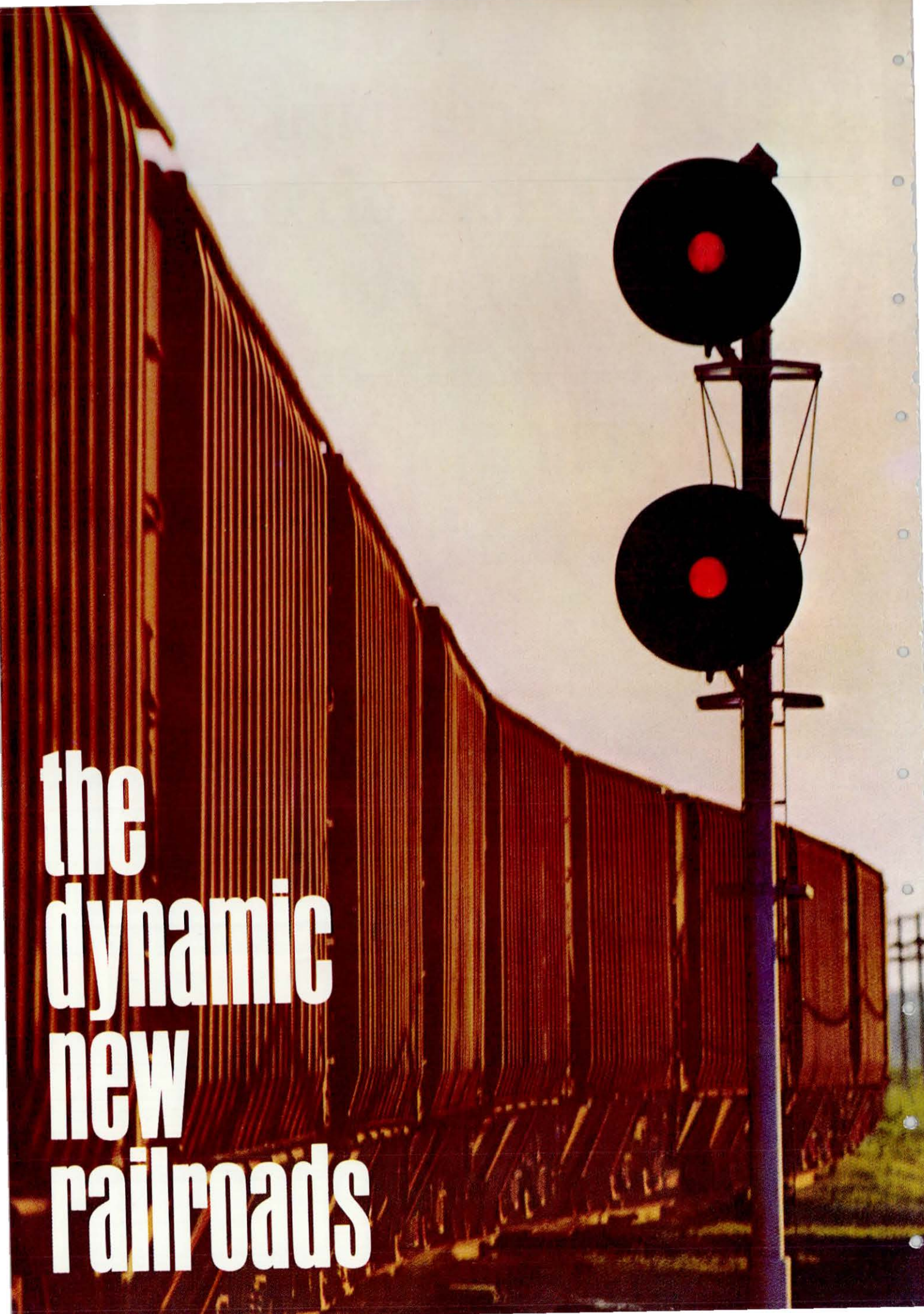
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The BULLDOZER stroke saving trouble club is designed with special grooves in the sole to cut down resistance and give extra speed and power to shots out of all difficult hazards.

**HERE ARE A FEW OF THE 36**

**HAND CRAFTED *Ben Sayers* CLUBS**

**EXPLODA**
An exciting trouble club for blasting out of impossible lies in traps and rough; extra heavy flange sole.

**BENNY PUTTER**
Renowned, Benny Putters help you get the most out of your green game. Modern center shafted style shown has Gruvsol concept to move ball straight to the hole. Also available end shafted, leather or rubber grip.

**WOOD MALLET PUTTER**
Crafted from excellent wood to give that "click" even on the green. Bent steel shaft hand crafted with laminated maple head to give precision balance on the green.

***Send for illustrated Ben Sayers brochure showing full line of professional irons, woods, trouble clubs, and putters; possibly the finest golf clubs in the world.***

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**NATIONAL PROFESSIONAL ATHLETES**
**Merchandising Co. c/o Mr. Andy Robustelli**
**35 Bedford Street, Stamford, Conn. 02902**

Please send me the Ben Sayers professional registered golf clubs checked.

| | Quantity |
|---|---|
| ☐ $19.95 Bulldozer, stroke saving | ..... |
| ☐ $19.95 Exploda, power blast | ..... |
| ☐ $19.95 Benny Putter, Gruvsoled | ..... |
| Shaft ☐ Ctr. ☐ End Grip ☐ Lthr. ☐ Rbr. | |
| ☐ $25.00 Wood Mallet Putter | ..... |

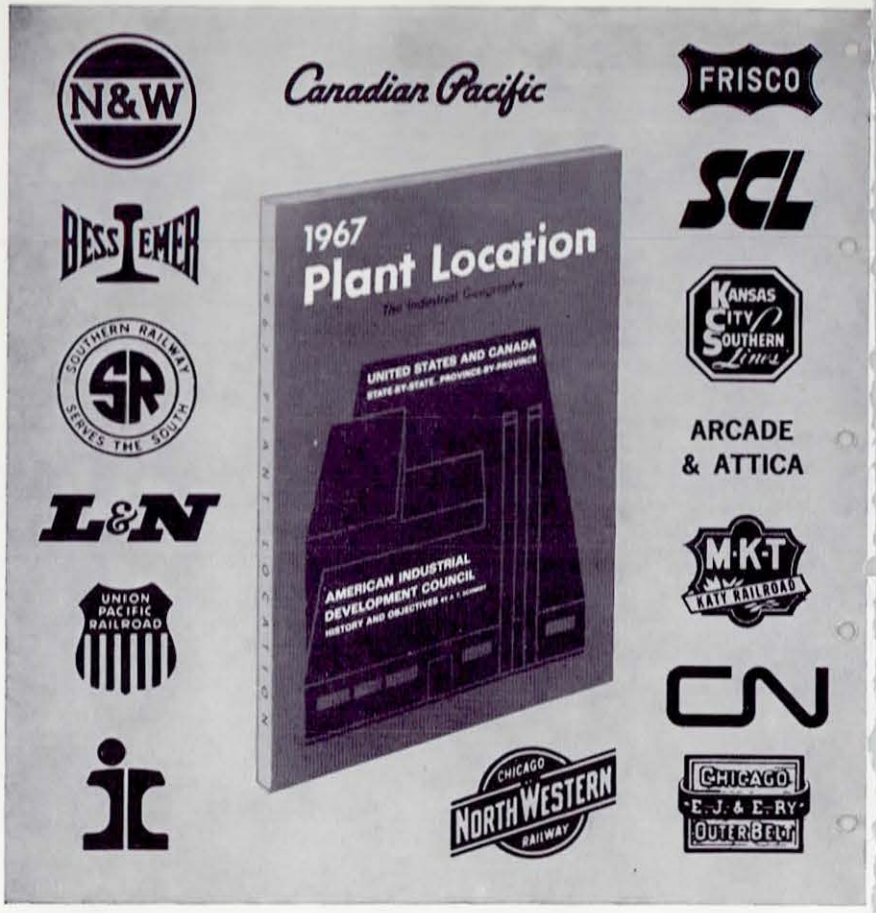
**Add 75¢ cost to cover shipping and handling.**

PAYM'T ENC. .....

NAME .....

ADDRESS .....

SIGNATURE, please. .....

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BEHR

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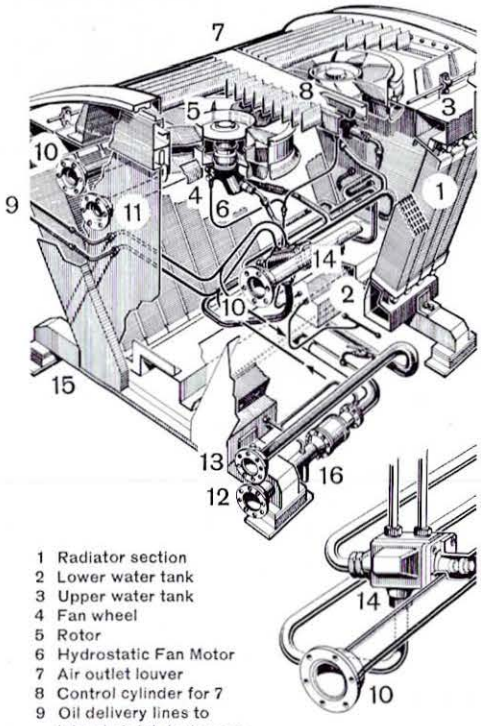


1 Radiator section
2 Lower water tank
3 Upper water tank
4 Fan wheel
5 Rotor
6 Hydrostatic Fan Motor
7 Air outlet louver
8 Control cylinder for 7
9 Oil delivery lines to lateral air intake louvers
10 Coolant inlet main circuit
11 Coolant inlet secondary circuit
12 Coolant outlet main circuit
13 Coolant outlet secondary circuit
14 Fan controller
15 Radiator support with elastic suspension
16 Check valve

BEHR

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Back in 1905, Julius Friedrich Behr founded the "Süddeutsche Kühlerfabrik" in Stuttgart-Feuerbach, Germany. The company bearing his name has been serving the automotive industries for 60 years. Behr's perseverance in promoting technological advancement in the field of automotive cooling, heating and ventilation has won his company world-wide repute and made it rise to its present importance.

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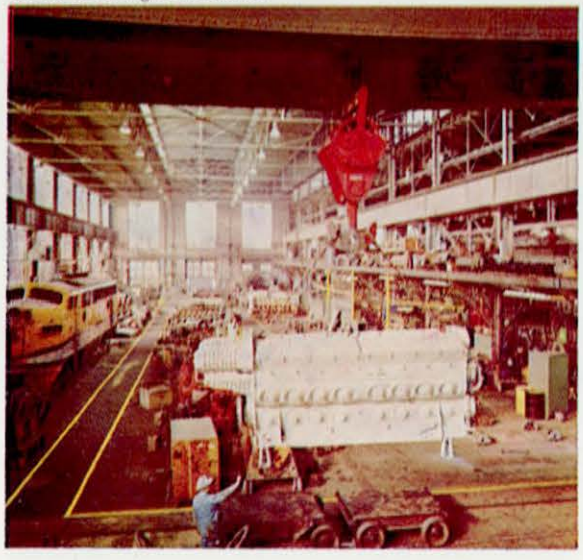
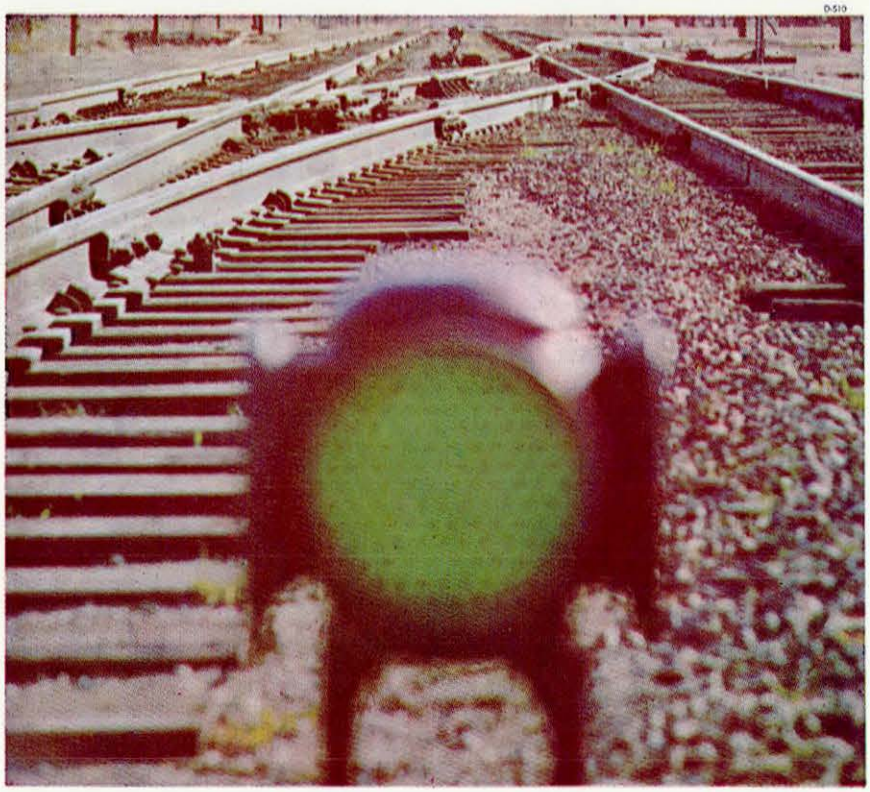


*Steel ribs for constructing or repairing cars and for other structures in the yard and on the right-of-way—CF&I Structurals, Bars and Shapes.*

## *a green board for railroad growth...*

## *CF&I Service in Steel*



*There's clear track to the future, because railroads and companies like CF&I work together to develop steel products for progressive railroad growth. During the past eighty years, CF&I has served western railroads by producing and improving steel products like the ones described on the next page—CF&I rails and accessories and other essential products for today's railroads—part of CF&I Service in Steel.*

**CF&I Rails and Accessories** — Over the years, the CF&I rail brand has become known as the mark of a company clearing the way for railroad progress. New sections (136, 119, 106 lb.), oxygen steel rail, Hi-Si® (high silicon) rail and accessories give the railroads a green board for growth.

**Prestressing Wire and Strand** — Prestressed concrete is changing the face of railroads. On every prestressing job, from bridges to crossties, fabricators can count on CF&I . . . a pioneer in the manufacture and use of prestressing wire and strand.

**Double Gray®-X Wire Rope** — has a coating of molybdenum disulphide for minimum internal friction to serve demanding railroad use. CF&I-Wickwire® Double Gray-X lasts longer than other brands of wire rope or an adjustment to our improved steel rope price will be made.

## Essential railroad products from CF&I

**CF&I Structurals** — Strong steel skeletons support railroad building projects. Wide flange, I & H beams, channels, angles, bars and reinforcing bars are available from CF&I, the only manufacturer rolling wide flange beams West of the Mississippi.

**Other CF&I Products** — Barbed Wire • Woven Wire Fence • Fence Posts • Fence Stays • Nails and Staples • Cold Rolled Steel • Welded Wire Fabric • Slings • Tubing • Cutting Edges • Galvanized Steel Strand • Made in the U.S.A. by American steelworkers. CF&I Steel Corporation, Denver, Colorado.

**Service in Steel... It's part of our product**

CF&I STEEL

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(Continued from page 116)

system in the yard at Selkirk, N.Y., $5,000,000 (40).

**Norfolk & Western:** Install ground storage facilities for coal and transfer terminal at Sandusky, Ohio, $5,750,000 (100); construct 8.4-mile extension of Big Creek branch from Jewell, Va., to Whitewood, $7,350,000 (30); construct 5.8-mile spur up Big Creek and Long Fork, Ky., $2,475,000 (100); construct additional yard facilitieis, including grade separations at Bellevue, Ohio, $13,360,500 (100).

**Northern Pacific:** Extend CTC between Tacoma, Wash., and Vancouver, $1,870,000 (1); and install microwave facilities from Fargo, N.D., and Laurel, $2,300,000 (100).

**Pennsylvania:** Renew 44 spans of elevated branch with all-welded bridges at West Philadelphia, Pa., $1,359,815 (100); construct spur track to electric power plant at Faulkner, Md., $2,300,000 (100); construct new line between Waynesburg, Pa., and Blacksville, W. Va., including 16 bridges, one tunnel and 32 miles of track $18,000,000 (81); construct 10-mile extension to Captina spur track near Powhatan, Ohio, including seven bridges, $4,500,000 (15); construct modern coal-handling facility at Ashtabula, Ohio, $10,000,000 (60); construct new yard to serve Armco Steel Corp., at Middletown, Ohio, $2,088,200 (100); and reconstruct bridge No. 294.89 at Riverdale, Ill., $2,020,000 (100).

**Reading:** Rehabilitate viaduct between Green and Callowhill streets in Philadelphia, Pa., $1,800,000 (20); and construct semi-automated wheel shop at Reading, Pa., $1,135,000 (25).

**St. Louis-San Francisco:** Construct 32.7-mile lead branch from Salem, Mo., $6,000,000 (100); and enlarge tunnel to increase vertical and horizontal clearances, Winslow, Ark., $1,500,000 (30).

**Southern:** Install CTC on Charlotte division $2,500,000 (100); and construct or extend wayside tracks $4,100,000 (100).

**Spokane, Portland & Seattle:** Relocate 78.8 miles of main track and signals between Mile Post 110 near Wishram, Wash., and Mile Post 188 near Patterson, Wash., $70,000,000 (100).

**Union Pacific: Construct** eastbound retarder yard consisting of 70 miles of additional yard trackage with appurtenant facilities for classifying eastbound traffic at North Platte, Nebr., $12,020,000 (67).

**Western Pacific:** Construct line change between Salt Lake City, Utah, and Garfield which will convert the separate, single tracks of the Union Pacific and the Western Pacific into a double-track paired operation, $2,750,000 (100). ■

## Freight and Passenger Car Charts

These charts are very helpful to AAR billing clerks, mechanical engineers, purchasing and stores personnel, car inspectors, write-up men, car foremen, and anyone else who needs a knowledge of car parts and their relation to each other.

The charts include a cutaway diagram of the car and a listing of important parts with arrows showing where each is located. These charts are a part of standard training programs used on a number of major railroads.

**$2 each**

**$10 for any six**

*If you are not satisfied*

**YOUR MONEY WILL BE REFUNDED**

*if you return the charts to us within 30 days*

THE RAILWAY EDUCATIONAL BUREAU
1809 CAPITOL AVENUE
OMAHA 2, NEBRASKA

Please send the charts I have checked below. If I am not satisfied I will return the charts within 30 days for a full refund. I enclose a check or money order for $2.00 for each chart or $10.00 for any six charts.

- ☐ Streamlined light weight passenger car (16x25 inches)
- ☐ Covered hopper car (20x30 inches)
- ☐ Box car, AAR standard 40 ft. (23x25 inches)
- ☐ Air conditioned chair car, 1930 design (18x35 inches)
- ☐ Tank Car (22x35 inches)
- ☐ Refrigerator Car, wood sheathed, steel underframe, 1920 design (14x20 inches)

1/22/68

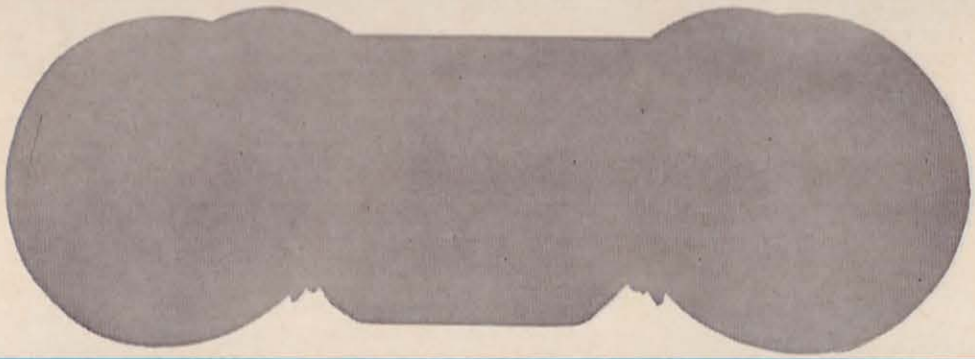
Name _____

Address _____

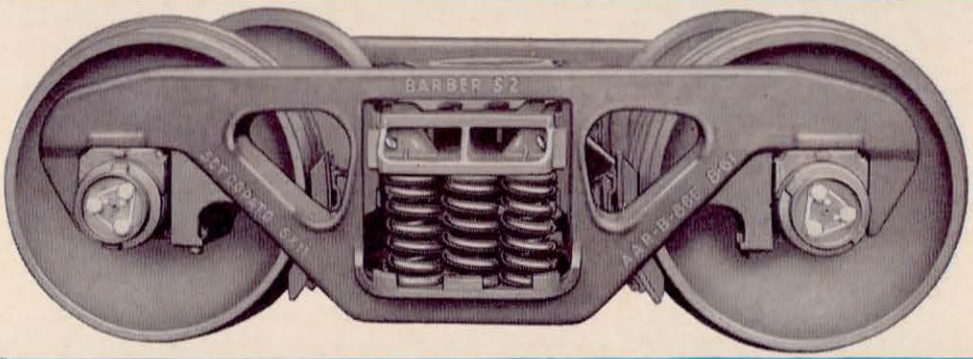
City _____ State _____

_____ RR _____

# The only one *"Just as good"*...



## ...is another BARBER Stabilized Truck




The Barber Stabilized Truck has no equal. Its "Total Design Concept" makes it unique—makes possible greater lading protection, longer life and lower maintenance. First cost is lower too!

*"Talk to the Man from Barber"*

BARBER

STANDARD CAR TRUCK COMPANY

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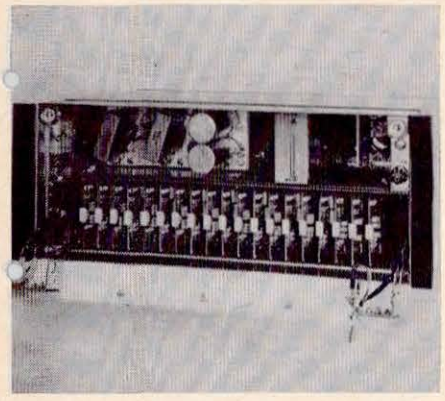
3626

# NEW PRODUCTS REPORT

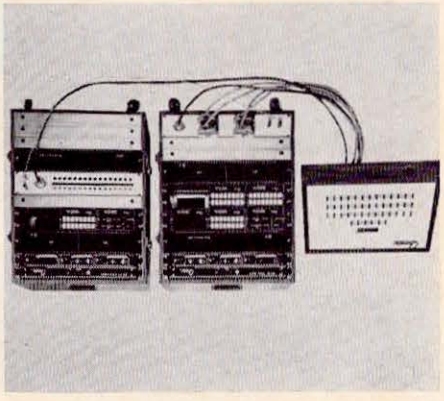


## Receiver Voting (RA-1)

Voiceband selection, sometimes called "receiver voting" is a means of insuring best circuit reception from a multi-receiver vehicular communications network. The Moore VBS system analyzes, automatically selects, and continuously re-selects the most intelligible incoming audio channel from up to 8 inputs. These capabilities are accomplished by solid state amplifiers, selectors, comparators, and logic techniques.

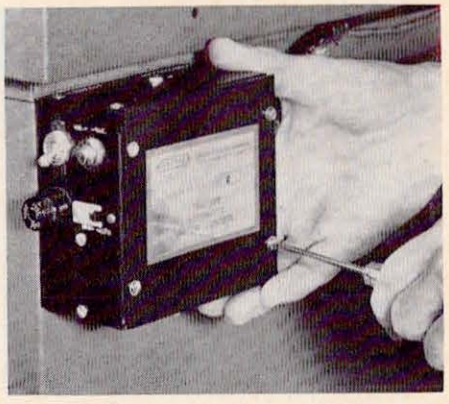
Voice noise, phase delays, fades, squelch tails, and other sounds without VBS, are normally all mixed together into a single, often degraded, output. VBS operates from receiver audio only. No remote equipment and/or control pairs or tones are necessary.

The dispatcher can be made aware of the selected audio channel by lamp displays. Switch connections (or optional switch panels) are available for such VBS functions as: audio channel Manual Monitor/Mute; (System) Hold Selection/Auto/Disable. The VBS unit is capable of selecting the best signal from a minimum of two to a maximum of eight incoming audio lines. *Moore Associates, Inc.*



## Scanning System (RA-2)

The QSS-1 is a completely electronic, solid state scanning system for alarm monitoring from unattended stations, digital telemetering, and remote control. Many bits of data can be transmitted over a single frequency shift tone channel, improving spectrum utilization. The transmitter consists of a driver board and encoder boards permitting expansion to 40 points. One driver module and up to five receiver registers of eight points each make up the receiver. *Quindar Electronics.*



## Teletype Motor Control (RA-3)

This automatic motor control for teleprinter machines senses incoming pulsed signals and turns the idle equipment on. The new unit is designed for use in teletypewriters where no special starting, stopping or acknowledgement signals are required. An electronic time delay relay energizes the motor and maintains operation throughout the transmission. The control employs all silicon transistors in its solid-state design. *Trepac Corp. of America*

## Deviation Calibrators (RA-4)

The 70DI-1MW and 70DI-2MW deviation calibrators are used with a standard VTVM to measure and set the deviation sensitivity (discriminator output voltage) of microwave radio receivers that utilize 70-MHz IF amplifiers. With deviation sensitivities properly adjusted, system frequency deviation can be accurately set to unity on each hop by adjusting the gain of the associated transmitter modulators accordingly. Deviation sensitivity adjustments are made by providing a test signal that alternates between two precise frequencies to the input of the IF amplifier. Deviation for the 70DI-1MW is 70.0±2.8 MHz (low-density message applications) and, for the 70DI-2MW, 70.0±4.0 MHz (medium and high density message and video applications). Based upon these precise deviations, the baseband output level of IF amplifiers can be adjusted using an AC voltmeter. The unit can provide a 70-MHz test signal with an adjustable output level of −25 dbm to −85 dbm. Calibrated FM or CW outputs are provided for rapid checks of IF Amplifier deviation sensitivity and over-all linearity. *Collins Radio Co.*


RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. George Johnson)

**PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED:** 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58

**PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 125 MARKED RA-1 RA-2 RA-3 RA-4**

NAME ..... TITLE.....

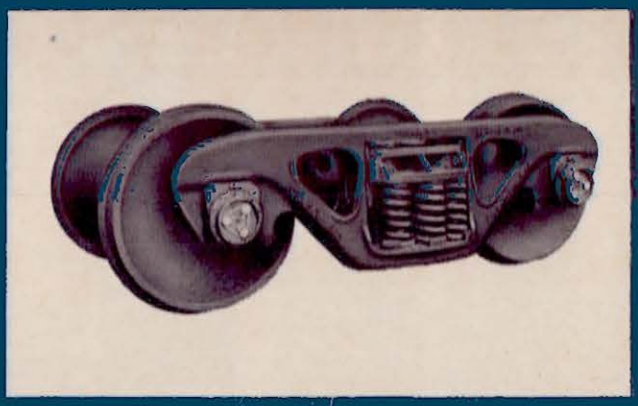
COMPANY .....

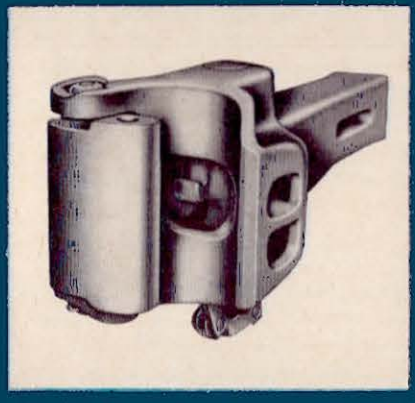
ADDRESS .....

CITY ..... STATE ..... ZIP .....

1/22/68

• **Inquiries can be processed only if title and company are shown.**





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You have the reputation for wanting the best freight cars—so, naturally, you want the best built components. Components you can count on come from Symington. They help you establish customer satisfaction—that extra something that spells repeat customers—repeat because they are satisfied customers.

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- STRIKERS
- TRUCKS
- BOLSTER CENTER FILLERS
- SIDE FRAMES
- SNUBBERS

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# MARKET OUTLOOK

## Carloadings

Loadings of revenue freight in the week ended Jan. 13 totaled 487,464 cars, the Association of American Railroads announced on Jan. 18. This was an increase of 70,201 cars, or 16.8%, compared with the previous week; a decrease of 54,840 cars, or 10.1%, compared with the corresponding week last year and a decrease of 57,092 cars, or 10.5%, compared with the equivalent 1966 week. Ton-miles generated by carloadings in the week ended Jan. 13 are estimated at 12.9 billion, a decrease of 7.8% below the corresponding week of 1967, and 6.3% below the 1966 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, Jan. 13

| District | 1968 | 1967 | 1966 |
|---|---|---|---|
| Eastern, including Allegheny and Pocahontas .. | 189,671 | 217,577 | 216,512 |
| Southern ..... | 104,119 | 117,532 | 115,862 |
| Total Eastern and Southern Districts .... | 293,790 | 335,109 | 332,374 |
| Northwestern . | 56,981 | 61,230 | 60,482 |
| Central Western | 102,170 | 108,947 | 112,003 |
| Southwestern . | 34,523 | 37,018 | 39,697 |
| Total Western Districts ..... | 193,674 | 207,195 | 212,182 |
| Total all Roads | 487,464 | 542,304 | 544,556 |
| Commodities: | | | |
| Grain and Grain Products .... | 50,012 | 55,029 | 61,781 |
| Livestock .... | 1,472 | 1,966 | 2,021 |
| Coal ..... | 98,177 | 114,508 | 111,795 |
| Coke ..... | 7,916 | 7,505 | 8,201 |
| Forest Products | 33,072 | 39,305 | 39,505 |
| Ore ..... | 14,351 | 17,325 | 15,668 |
| Merchandise l.c.l. | 3,939 | 5,371 | 6,571 |
| Miscellaneous . | 278,518 | 301,295 | 299,014 |
| Jan. 13 ..... | 487,464 | 542,304 | 544,556 |
| Jan. 6 ..... | 417,263 | 451,575 | 508,282 |
| Cumulative total 2 weeks .... | 904,927 | 993,879 | 1,052,838 |
| Estimated revenue ton-miles (billions) | | | |
| Two weeks . | 24.0 | 25.7 | 26.7 |

**PIGGYBACK CARLOADINGS.**—U. S. piggyback loadings for the week ended Jan. 6 totaled 18,252 cars, carrying 29,989 trailers, compared with 17,823 cars, carrying 28,483 trailers, in the corresponding 1967 week.

**IN CANADA**—Carloadings for the ten-day period ended Dec. 31, 1967, totaled 69,261 cars, compared with 67,374 for the previous seven-day period, according to the Dominion Bureau of Statistics.

| | Revenue Cars Loaded | Total Cars Rec'd from Connections |
|---|---|---|
| Totals for Canada | | |
| Dec. 31, 1967..... | 69,261 | 27,280 |
| Dec. 31, 1966..... | 80,358 | 30,491 |
| Cumulative Totals | | |
| Dec. 31, 1967..... | 3,788,133 | 1,235,920 |
| Dec. 31, 1966..... | 4,032,983 | 1,258,604 |

## FREIGHT TRAIN CARS

► *Katy.*—Directors approved lease of 300 100-ton covered hopper cars to be built by Pullman-Standard and purchase of 30 bi-level auto racks for TTX cars. Program for 1968 includes these items not yet ratified: 100 60-ft 100-ton and 100 50-ft 70-ton insulated box cars; five 60-ft, 9-in. 100-ton autoparts cars; one special flat car for handling transformers.

► *Southern.*—Ordered 500 70-ton box cars, costing $8.3 million, from Pullman-Standard. Deliveries are to begin in March.

## SPECIAL

► *Louisville & Nashville.*—Will spend $730,000 for 82 tri-level and 10 bi-level auto racks to be installed on TTX cars.

► *Missouri Pacific Truck Lines-Texas & Pacific Motor Transport.*—Ordered 75 city pick-up-and-delivery trucks; 42 city pick-up-and-delivery trailers; 138 high-cube trailers and flat-bed trucks for over-the-road and piggyback service; 100 refrigerated trailers, and 42 over-the-road diesel tractors. Total cost of the orders is estimated at more than $3.5 million.

## PASSENGER TRAIN CARS

► *Chicago & North Western.*—Ordered 20 bi-level passenger coaches from Pullman-Standard at a cost of $3.5 million for delivery next fall and winter.

## NEW FACILITIES

► *Northern Pacific.*—Budgeted $3,850,000 for extension of microwave between Billings, Mont., and Seattle; $6,645,115 for rail and other track material; and $1,480,085 for improvement of signal and interlocking systems. NP's 1968 track program calls for installation of welded rail in 80 miles of mainline track.

## CAPITAL EXPENDITURES

► *Illinois Central.*—Capital-improvements budget for 1968 will total $68,752,000. IC had previously announced a $45.8-million equipment program (RA, Oct. 23, p. 37) for 22 new locomotives and 3,100 freight cars. Additional authorizations of $5,875,000 will go principally for upgrading of passenger cars and work equipment, rebuilding of 17 diesel-electric units and purchase of shop and roadway equipment. The fixed-property budget will total more than $17 million, including $4.6 million for communication-system improvements and $1.1 million for the automatic fare-collection system on Chicago commuter lines. Plans also call for the installation of 170 miles of welded rail in '68. IC President W. B. Johnson said his road is "continuing in the same vein as our 1967 program [which was the largest in IC history]. Our expectations are based on sound marketing studies of the traffic potential of our territory and on extensive conferences with major shippers." Current delivery schedules, IC indicated, will bring about half of the new equipment onto the property in first-quarter 1968.

# YOU OUGHT TO KNOW

**New crossing study ordered:** The National Transportation Safety Board last week released a railroad grade crossing accident report that recommends a U.S. Department of Transportation study of "the significant problem of booby trap railroad crossings." The Safety Board also urged local authorities to be as strict with railroad grade crossing law enforcement as with enforcement at highway intersections (RA, Jan. 15, p.19).

**Bridge safety panel named:** AAR President Thomas M. Goodfellow has appointed a committee of 12 railroad engineers to work with the White House Task Force on Bridge Safety. President Johnson created the task force following the collapse last Dec. 15 of the 40-year-old Ohio River Bridge between Point Pleasant, W. Va., and Gallipolis, Ohio. Goodfellow noted that the nearly 200,000 railroad bridges in the U.S. are constantly checked to insure that loads and stress never exceed established safety limits. Heading the railroad bridge committee is T. P. Hutcheson, assistant vice president—engineering and maintenance of way, Seaboard Coast Line. Vice chairman is H. M. Williamson, system chief engineer, Southern Pacific.

**New materials handling firm:** Officers of the Fruehauf Corp. Fischbach and Moore, Inc., have announced the formation of a jointly owned company to be called Fruehauf-Fischbach Automation, Inc. Headquartered in Los Angeles, the new company will develop, design and install materials handling systems.

**New TOFC terminal:** Erie Lackawanna is opening a new piggyback terminal in Cleveland, Ohio, at E. 155th St., adjacent to Interstate Route 77, to meet increasing demands for TOFC service. Daily capacity will be "several hundred trailers," according to a spokesman.

**Transportation Week:** National Transportation Week will be observed May 12 through May 18 this year, according to Curtis C. Tatham, national chairman, and Abraham A. Diamond, co-chairman. Tatham is manager of industrial marketing for Pullman-Standard and Diamond is a member of Seyfarth, Shaw, Fairweather & Geraldson, Chicago law firm. National Defense Transportation Day will be May 17. Information is available from Tatham and Diamond at Associated Traffic Clubs, 407 S. Dearborn St., Chicago, Ill., 60605.

**GATX enters equipment finance:** General American Transportation Corp. has announced its entrance into major equipment financing through formation of GATX/Boothe Corp. The new subsidiary will do financing and equity leasing of airplanes, ships and similar major items. GATX owns 90% of GATX/Boothe. The remainder is owned by D. P. Boothe, Jr., board chairman of the new company, and his associates.

**Rent-a-Train opposed:** Illinois Central's Rent-a-Train plan (RA, Dec. 4, pp. 64 and 66) has hit its first possible snag. A group of 10 small shippers has filed suit against the plan in Federal district court at Springfield, Ill. Under the name of Country Elevator's Defense Committee, the shippers charge that the IC plan is an illegal tariff and that it "will eliminate competition in buying grain at Illinois points." No date has been set for a hearing.

**RPI membership gains:** During 1967 membership in the Railway Progress Institute increased from 144 to 186 firms, a 29% gain.

**NARUC renames itself:** It's still NARUC—but the initials no longer stand for National Association of Railroad and Utilities Commissioners. The new name is National Association of Regulatory Utility Commissioners. The name change became official at NARUC's recent convention in Hollywood, Fla. The 1968 convention will be held in Chicago's Palmer House, Nov. 11-14.

**Truck tonnage:** Intercity truck tonnage in the week ended Jan. 6 was 9.1% above that of the previous week and 4.0% below volume in the corresponding 1967 week, according to American Trucking Associations.

## Current statistics

| | |
|---|---|
| **Net Income** | |
| 9 mos., 1967 | $342,200,000 |
| 9 mos., 1966 | 659,900,000 |
| **Carloadings, revenue freight** | |
| 2 wks., 1968 | 904,927 |
| 2 wks., 1967 | 993,879 |
| **New freight cars on order** | |
| Dec. 1, 1967 | 21,828 |
| Dec. 1, 1966 | 56,395 |
| **New freight cars delivered** | |
| 11 mos., 1967 | 77,612 |
| 11 mos., 1966 | 81,860 |
| **Serviceable cars** | |
| Dec. 1, 1967 | 1,414,632 |
| Dec. 1, 1966 | 1,420,553 |

SPENO Is Our Name But Our Way of Life Is

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(Sales Representative For Canada)

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Automatically holds a switch in its normal position at all times — prevents wheels from "splitting" the switch . . . eliminates vandalism.

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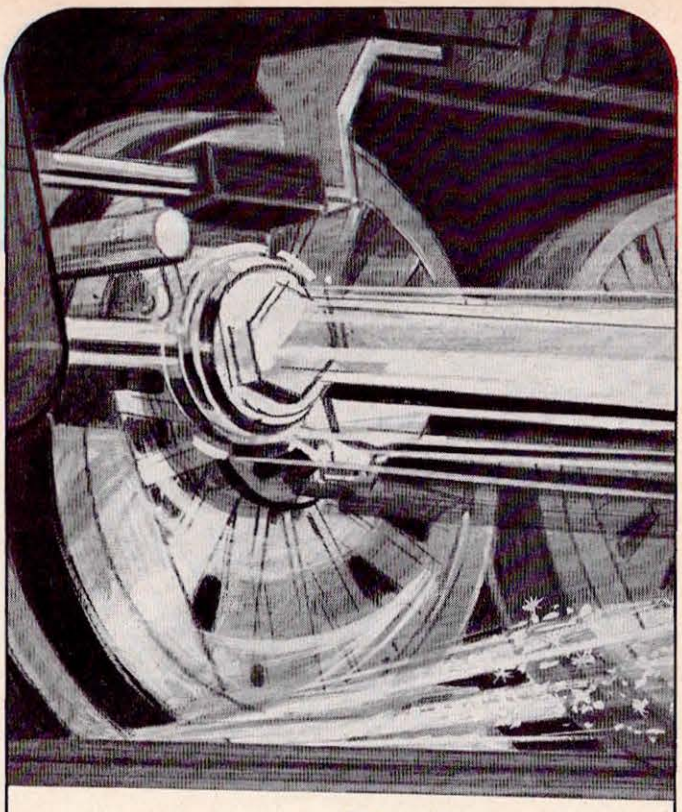
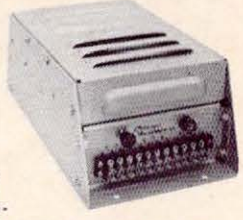


# stops slipping starts gripping

**Summit Locomotive Electronic Wheel Slip Control System from Barco**



When locomotive wheels start to slip, the Barco-Summit Electronic Wheel Slip Control takes over instantly. Using the Rate-Of-Change principle the control reduces power in a split second. Besides eliminating wheel and rail damage, the Wheel Slip Control allows longer trains to be pulled with the same power. Available for both AC & DC locomotives. Can be installed in the field on older locomotives.

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# PEOPLE IN THE NEWS

**BAUXITE & NORTHERN.**—**M. Carl Herron** elected president of the **B&N; Massena Terminal; Rockdale, Sandow & Southern,** and the **Point Comfort & Northern.**

**CHESAPEAKE & OHIO.—BALTIMORE & OHIO.**—**Franklyn J. Carr** named head of the Communications Services Section, Public Relations and Advertising Department, Cleveland. Mr. Carr was formerly with General Electric Corp., Schenectady, N.Y., where he was a producer in audio-visual communications.

**James H. Blankenship** appointed coal traffic agent, C&O, Chicago.

**D. W. Smirl** appointed assistant superintendent transportation, C&O, Huntington, W. Va., succeeding **C. R. McComas,** promoted to superintendent, Hinton, W. Va., replacing **K. R. Ketcham,** retired.

**C. H. Spencer** appointed assistant superintendent safety and fire prevention, C&O-B&O, Baltimore, Md., succeeding **E. H. Byer,** retired.

**Charles R. Van Horn,** Washington representative, promoted to assistant vice president—government relations, 402 Transportation Bldg., Washington, D.C.

**James R. Gannon** appointed assistant general attorney, Chicago. **Robert O. Smith, Jr.,** and **Richard B. Allen,** assistant general counsel, appointed general attorneys, Baltimore.

**CHICAGO & NORTH WESTERN.**—**Victor L. Preisser,** staff officer on the corporate development staff, appointed to the newly created position of assistant vice president-accident and loss prevention.

**R. A. Sharp,** superintendent, Twin Cities division, St. Paul, advanced to assistant terminal manager, Chicago Terminal, Proviso, Ill. Mr. Sharp's successor is **L. F. Fox. C. J. Burger** and **R. L. Gosnell, Jr.** named trainmasters, Wisconsin division, Madison, Wis., and Galena division, South Pekin, Ill., respectively.

**LOUISVILLE & NASHVILLE.**—**Philip M. Lanier,** general solicitor, named assistant vice president-law.

**L. K. Taliaferro,** engineer, special equipment, named assistant superintendent of special equipment, Louisville. **J. C. Padgett,** engineer, special equipment, appointed assistant superintendent of equipment, Louisville.

**George R. Wuertele,** general industrial agent-lines South, named general manager, industrial development, Southern Region, Birmingham, Ala. **R. H. Nicholas,** industrial agent, becomes general manager, industrial development, Central area, Nashville, Tenn. **Kenneth J. Ludwig,** industrial agent, named general manager, industrial development, Louisville. **Arthur B. Crowe,** industrial agent, and **Walter M. Harney, Jr.,** industrial representative, named managers, industrial development, both with headquarters at Louisville.

**MILWAUKEE.**—**E. H. Vanhala** named manager of cost research in the newly formed cost research section of the management services department.

**Lawrence W. Harrington,** assistant director of labor relations, Chicago, named director of labor relations there.

**Harry S. Meislahn,** assistant director of marketing and research, appointed director of marketing and research, with headquarters remaining at Chicago.

**NEW HAVEN.**—**William E. McLennan,** general accountant, New Haven, appointed comptroller, succeeding **Arthur J. Beauton,** retired after more than 50 years with the New Haven.

**NEW YORK CENTRAL.**—**John E. Salter,** district public relations director, Eastern District, Syracuse, N.Y., appointed manager, news services, system, New York.

**NORTHERN PACIFIC.**—**William F. Greer** named to the newly created position of director of advertising and publicity. He was formerly account executive on NP's account at the Twin Cities' office of **Batten, Barton, Durstine & Osborn.**

**Robert M. Montbriand,** assistant general freight agent—rates, promoted to general freight agent—rates and divisions, with headquarters as before at St. Paul.

**SOUTHERN.**—**Jack Clinton McLarn,** manager, marketing and research services, Washington, D.C., retired Dec. 31 after more than 48 years of service.

**SOUTHERN FREIGHT ASSOCIATION.**—**Bates B. Bowers,** assistant chairman, Atlanta, Ga., elected chairman, succeeding **Robert E. Boyle, Jr.,** who retired Jan. 1, after almost 50 years in the railroad industry.

## OBITUARY

**Carlos S. Belcher,** 60, assistant traffic manager—rates and divisions, **Clinchfield,** Erwin, Tenn., died Jan. 10 in the Johnson City Memorial Hospital.

**Walter W. Kremer,** 67, retired traffic vice president, **Milwaukee,** died Jan. 3 at the Anderson Memorial Hospital, Norway, Mich.

Franklyn J. Carr
C&O-B&O

Victor L. Preisser
C&NW

Philip M. Lanier
L&N

E. H. Vanhala
Milwaukee

L. W. Harrington
Milwaukee

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## Advertisers' Index


Abex Corporation ..... 110
ACF Industries, Inc., American Car & Foundry Division .....106-107
Aeroquip Corporation, Barco Division ..... 129
Alco Products, Inc. ..... 92-93
American Oil Company ..... 24-25
American Steel Foundries, Inc., Amsted Industries ..... 4

Berwick Forge & Fabricating Co. ..... 52
Bethlehem Steel Corporation .....118-119
Broderick & Bascom Rope Company ..... BC
Bruce Co., Inc., E. L. ..... 51
Buffalo Brake Beam Company ..... IFC

Canada Iron Foundries, Ltd. ..... 111
Cardwell Westinghouse Company ..... 41
CF&I Steel Corporation .....122-123
Clouds Distributing & Manufacturing Co. ..... 112

Difco, Inc. ..... 130
Dorsey Trailers, Inc. ..... 53

Electro-Motive Division of General Motors Corporation ..... 58-61
Ex-Cell-O Corporation ..... 56

Foster Co., L. B. ..... 109

General American Transportation Corp. .....114-115
General Electric Company ..... 31
General Railway Signal Company ..... 36
General Steel Industries, Inc. ..... 13
Grenville Steel Car Company ..... 117
Gustin-Bacon Division, Certain-teed Products Corporation ...104-105

International Car Corp. ..... 113
International Nickel Company, Inc., The ..... 9

Kinnear Corporation ..... 85

Landreth Industries, Inc. ..... 19-22
Lenkurt Electric Company ..... 6

Magor Division, Fruehauf Corporation .....102-103
Marquardt Industrial Products ..... 45
Miner, Inc., W. H. ..... 64-65
Mobil Chemical Company ..... 20

National Castings Division, Midland-Ross Corporation ..... 10-11
National Lead Company, Magnus Metal Division ..... 63

Pullman Standard, Division of Pullman, Inc. ..... 68-69

Rails Company, The ..... 129
Railway Educational Bureau ..... 123
Railway Equipment & Methods Company ..... 116
Research Products Manufacturing Co., Inc. ..... 86
Reynolds Metals Company ..... 15-18
Rockwell Manufacturing Company, LFM-Atchison Division .. 28

Servo Corporation of America ..... 23
Speno Railroad Ballast Cleaning Co., Inc., Frank ..... 129
Sperry Rail Service Division ..... 47
Standard Car Truck Company ..... 124
Stanray Corporation ..... 30
Stucki Company, A. ..... 112
Suddeutsche Kuhlerfabrik ..... 121
Symingtcn Division of Symington Wayne ..... 126

Tamper, Inc. ..... 111
Thrall Car Manufacturing Company ..... 32-35
Timken Roller Bearing Company, The .....100-101

United States Steel Corporation ..... 54-55
Unity Railway Supply Company ..... 26-27
Universal Railway Devices Co. ..... 3
Universal Tool & Die Co. ..... 48

Waugh Equipment Co. ..... IBC


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Charles E. Keil—district manager

**Chicago, Ill. 60604,**
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K. F. Sheeran—regional vice president;
John M. Brennan—regional sales manager
Peter Hoagland
Ross Mandic
—district managers

**Lakewood, Ohio 44107,**
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(216) 226-8038
Harry H. Melville—vice president

**Pittsburgh, Pa. 15219, Room 720,**
(412) 471-7871
Frick Building
William M. Champion—regional sales manager
Ronald M. Giallonardo—district manager

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TRinity 2-6720—J. S. Crane

**Dallas, Tex. 75219,**
3636 Cedar Springs (#207)
(214) 521-2322
Joseph Sanders

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Fred Klaner, Jr.

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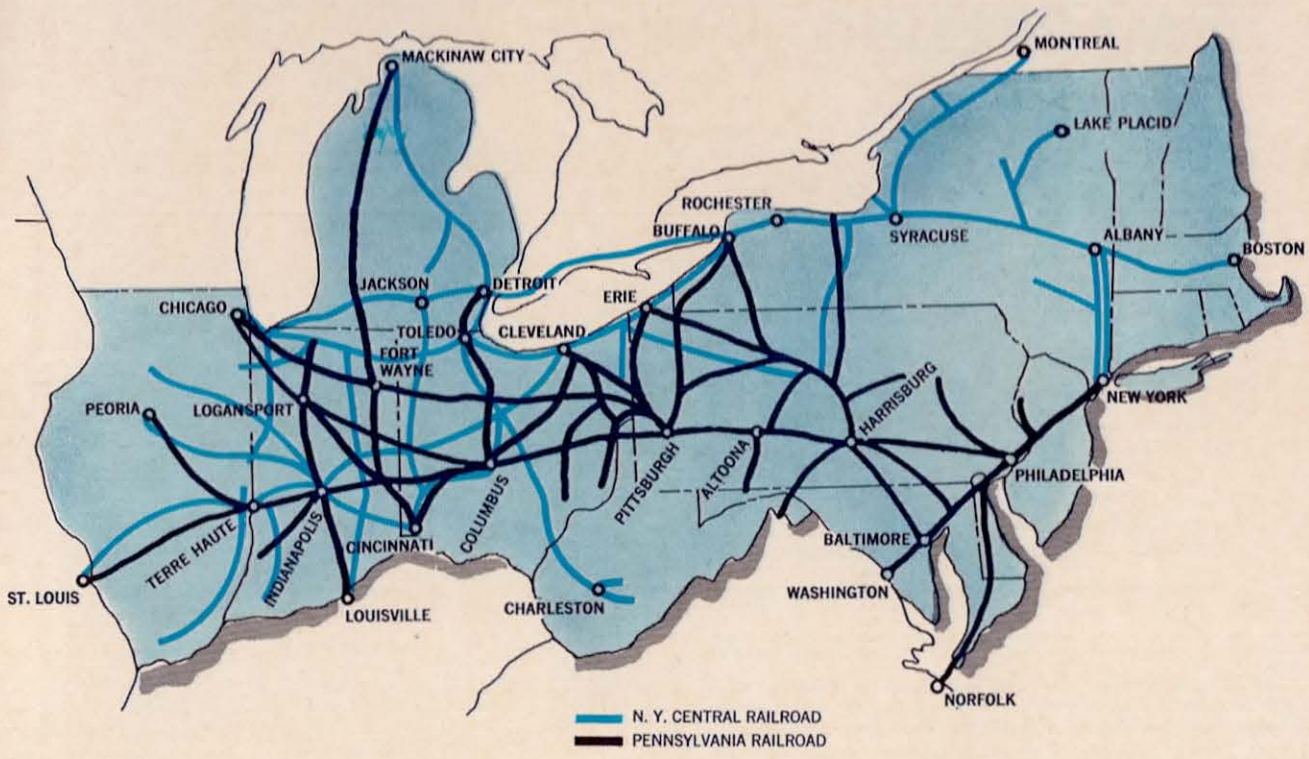
# VIEWPOINT




# Penn-Central: Why this merger matters

To suggest that the Supreme Court's decision on the Penn-Central did not bring comfort and joy to railroaders everywhere would be the understatement of the young year. But passions will cool, and last week's action will one day be recognized for what it is: a historic paving stone on the road back for U.S. railroading.

This merger matters because:

—It recognizes, on a gigantic scale, that you can't do business in the mid-20th century with tools forged to meet 19th century needs. (If this seems too obvious to require stating, just look around you.)

—It will permit two great railroads to join in providing a service truly competitive with other modes of transport, instead of depleting their energies in the kind of infighting that is sometimes mistaken for healthy competition.

—It will protect many thousands of railroad jobs; there is no security in weakness, and the best labor contract in the world is worthless if there's no work to back it up.

—It will dramatize, to a still-unconvinced public, the great vitality that railroads can muster when given the freedom to respond to the demands of change.

—It will demonstrate that the best mergers are born out of strength, not weakness; that merger can be and ought to be more than a defensive tactic of an industry in retreat.

—By creating the world's largest privately-owned railway system, this merger will show what a private enterprise railroad can accomplish under optimum conditions, and will thus be a powerful argument against nationalization.

•

Merger is no panacea for what ails the railroads. The union of the Erie and the Lackawanna demonstrated that. But it can be a potent ingredient in the compounding of the medicine that will cure what *does* ail the railroads—which is malnutrition, pure and simple.

Savings stemming from the Penn-Central merger are conservatively estimated at more than $80 million annually. That will buy a lot of medicine.

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